2. International Congress on Natural & Medical Sciences

June 12-13, 2023
Ege University, Izmir, Turkey

Abstract Book

EDITORS:
Prof. Dr. Bahri BAŞARAN
Prof. Dr. Ali MERT

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ABSTRACT BOOK

EGE
2nd INTERNATIONAL CONGRESS ON NATURAL & MEDICAL SCIENCES

June 12-13, 2023
Ege University, Izmir, Türkiye

Editors

Prof. Dr. Bahri BAŞARAN
Prof. Dr. Ali MERT

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CONGRESS ID

TITLE OF CONGRESS

EGE
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Keynote & Invited

DATE - PLACE

June 12-13, 2023
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TOTAL PAPERS: 107

The number of abstracts from foreign countries: **57**

The number of abstracts from Türkiye: **50**

LANGUAGES

Turkish, Uzbek, English, Russian,

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DOCTORS HAVE MANA
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COVERING VARIOUS A
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FACTS AND CLINICAL
UZBEKISTAN.


Zoom Toplantı - Hall-7
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Kalan: 09:28:46
Görüntüle
Firas Alali
Observer Hall-7
Observer Hall-7
Marvel Reuben Suwitono_Hall 7
Hall 7 Titin Sulastri
Hall 7 Gheorghe Giurgiu
Ivonne Panjaitan
Olufemi Ayanfe...
OlufemiAyanfeOluwa
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Ekran Paylaşımı
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Uygulamalar
Daha fazla
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13.06.2023


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Observer Hall-7
Observer Hall-7
Muhammad Dauda Mainako
Burak CANPOLAT
Sarki Adama Musa
Hall-7, Boudou...
Hall-7, Boudoumi Barkahoum
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Katılımcılar
Sohbet
Ekran Paylaşımı
Kaydı Duraklat/Durdur
Reaksiyonlar
Uygulamalar
Daha fazla
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13.06.2023


Zoom Toplantı - Hall-8 (yedek)
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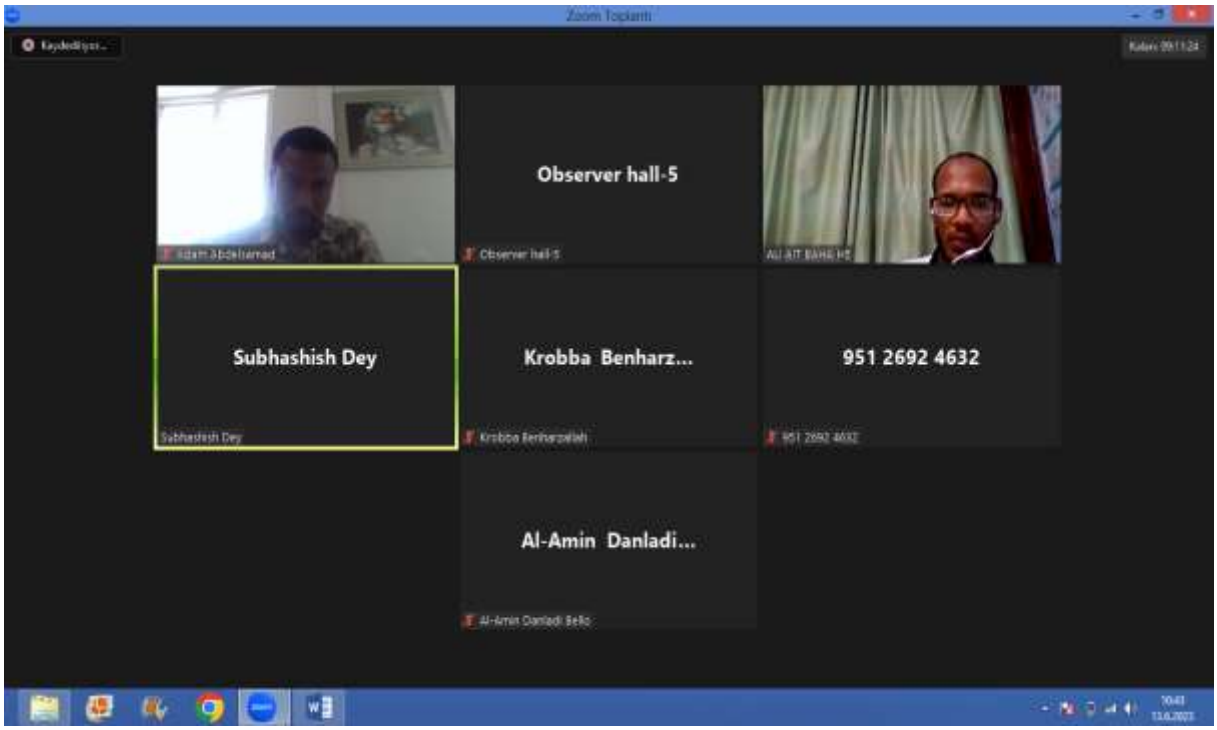
Zoom Toplantı
Observer hall-5
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Krobba Benharz...
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Observer-Hall-6
Hall-6 EZGİ ÖZ...
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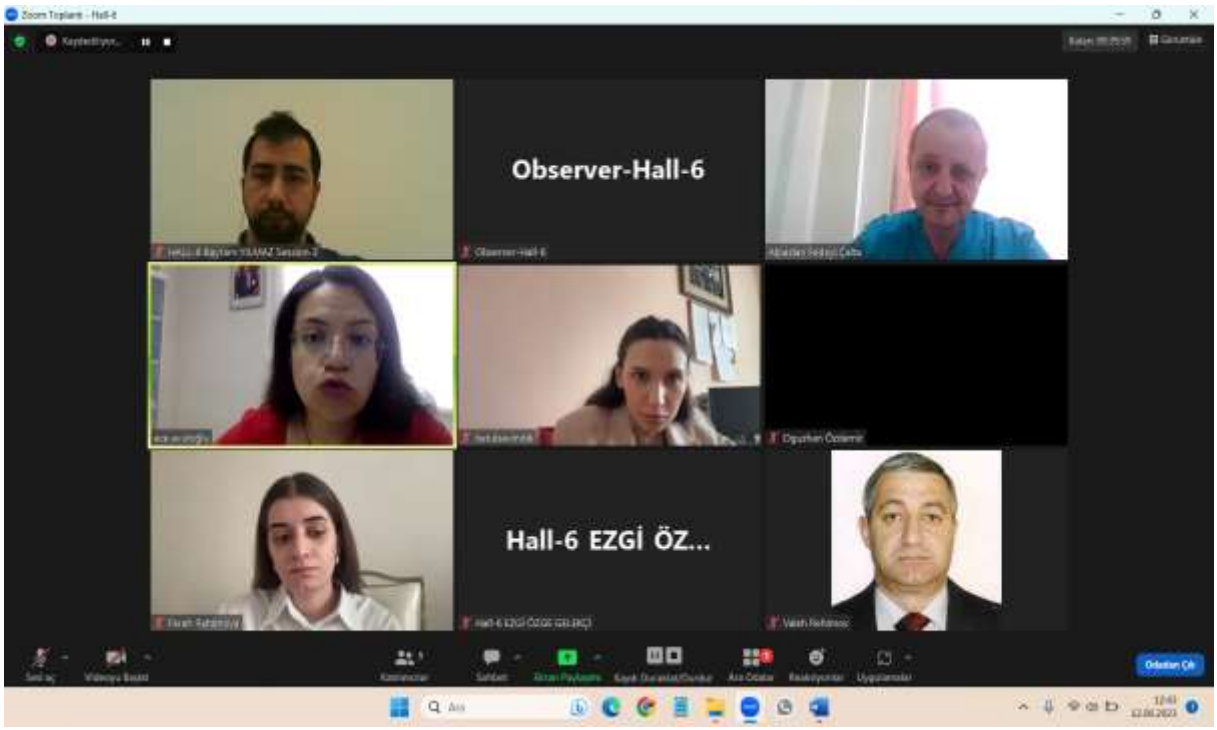
Observer-Hall-6
Hall-6 EZGİ ÖZ...


Observer-Hall-6
İlayda Özyurt


Observer hall-7
Fatima sule
Dr. Shahid Shah
M
A
Fatima Sule


Observer-Hall-7
Hall 7 Aras Gezer
Hall -7 Christian...

EGE

2nd INTERNATIONAL CONGRESS ON NATURAL & MEDICAL SCIENCES

June 12-13, 2023

Ege University, Izmir, Türkiye

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PARTICIPANT COUNTRIES (17):

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- Opening Ceremony-

Ege University, Faculty of Fisheries Conference Hall

12.06.2023

Time: 13:00-14:00

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Director of Ege University Graduate School of Natural and Applied Science

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FACE TO FACE (HALL-Z11)

12.06.2023

Moderator: Assist. Prof. Dr. Mehmet Emin ŞEKER

Address: Ege University, Faculty of Fisheries

Ankara Local Time: 14:30 – 16:30

TITLE	AUTHOR(S)	AFFILIATION
CHEMICAL ANALYSIS (PHENOLIC CONTENT AND MICRO-MACRO ELEMENTS) AND HEALTH RISK ASSESSMENT OF HAWTHORN (*CRATAEGUS* SPP. L.) FRUITS	Mehmet Emin ŞEKER Ayşegül ERDOĞAN	Giresun University, Türkiye Ege University, Türkiye
IMMOBILIZATION OF *MORCHELLA ESCULENTA* EXTRACT TO HYDROCHAR OBTAINED FROM SOLID WASTES BY SUBCRITICAL WATER METHOD, APPLICATION TO AIR FILTER AND INVESTIGATION OF ANTIMICROBIAL PROPERTIES	İzzetcan KINACI Elif ERDOĞAN ELİUZ Erdal YABALAK	Mersin University, Türkiye
THE USE OF AROMATHERAPY AS A COMPLEMENTARY MEDICINE APPLICATION IN TURKEY: A SYSTEMATIC REVIEW OF GRADUATE THESES IN NURSING	Rana CAN ÖZDEMİR Meryem Türkan IŞIK Nigar ÜNLÜSOY DİNÇER	Akdeniz University, Türkiye Ankara Yıldırım Beyazıt University, Türkiye Mersin University, Türkiye
TURKISH VALIDITY AND RELIABILITY STUDY OF THE INVENTORY OF HYPERACUSIS SYMPTOMS	Nur ONUR Gülce KİRAZLI Tayfun KİRAZLI	Ege University, Türkiye Özel Ada Dil Konuşma Özel Eğitim ve Rehabilitasyon Merkezi, Türkiye
PROGNOSTIC VALUE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO IN SMALL ANIMAL MEDICINE	Nergis ULAŞ	Atatürk University, Türkiye
ASSOCIATE STUDENTS' ATTITUDES TO MUSEUM VISITS: DOKUZ EYLUL UNIVERSITY VOCATIONAL SCHOOL OF HEALTH SERVICES	Ayşe Pınar Erçetin Tijen Erçal	Dokuz Eylül University, Türkiye

FACE TO FACE (HALL-116)

12.06.2023

Moderator: Kurbanova Mokhira Abduvahabovna

Address: Ege University, Faculty of Fisheries

Ankara Local Time: 14:30 – 16:30

TITLE	AUTHOR(S)	AFFILIATION
LOGISTICS AND MANAGEMENT IN HEALTHCARE	Alimova Sabohat Gazievna	Tashkent Medical Academy, Tashkent, Republic of Uzbekistan
DETERMINATION OF THE TOXICOLOGICAL PROPERTIES OF COATINGS BY THE THERMAL DESTRUCTION METHOD	Kurbanova Mokhira Abduvahabovna	Tashkent Medical academy, Assistant professor, Department of Medical and Biological Chemistry Uzbekistan
СИНТЕЗ И ИЗУЧЕНИЯ СВОЙСТВ АЗОТ, СЕРА И КИСЛОРОДСОДЕРЖАШИХ ГЕТЕРОЦИКЛИЧЕСКИХ СОЕДИНЕНИЙ	Yusupxodjayeva Xurshida Masharipov Sobir Masharipovich	Tashkent Medical academy, Uzbekistan
ASPECTS OF TREATMENT OF SCOLIOSO-SPINE DISEASES IN PHYSIOTHERAPY	Natavan Babayeva	Azərbaycan, Sumqayıt şəhər 4 № Şəhər Xəstəxanası

Session -1 / Hall-6
12.06.2023
Moderator: Prof. Dr. Mehmet ÖZÇELİK
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 10:00 – 12:00

TITLE	AUTHOR(S)	AFFILIATION
COMPARISON OF THE EFFECTS OF EXERCISE, MANUAL THERAPY AND TEEREHABILITATION ASSISTED THERAPY ON PAIN AND FUNCTIONALITY IN SUBACROMIAL IMPRESSION SYNDROME	Erman Berk ÇELİK Ayşenur TUNCER	Hasan Kalyoncu University, Türkiye
EXERCISE IN RHEUMATOID ARTHRITIS	Sultan Levent Şerife Vatansever	Uludağ University, Türkiye
OUR LONG-TERM RESULTS İN THE TREATMENT OF PROXİMAL HUMERAL FRACTURES WİTH THE PHILOS PLATE	İbrahim Ulusoy Aybars Kıvrak	Selahaddin Eyyubi State Hospital Adana Avrupa Hospital
OCULOMOTOR SYSTEM AND DEVELOPMENT OF SITTING SKILLS IN BABIES	Elif FİŞNE Ayşe NUMANOĞLU AKBAŞ	Sivas Cumhuriyet University, Türkiye Balıkesir University, Türkiye
THE EFFECT OF FASCIAL DISTORTION MODEL ON CERVICAL JOINT POSITION SENSE IN TENSİON HEADACHE PATIENTS: PILOT STUDY	İbrahim Halil GİRİTLİOĞLU Tuba MADEN Sedat YİĞİT Halil ibrahim ERGEN Sedat YAŞİN	Gaziantep University, Türkiye
COLD APPLICATION IN INJURIES	Beyza Hilal TOY Betül DURMUŞ Emine Evrim UZUN Doç. Dr. Raziye ŞAVKIN	Pamukkale University, Türkiye
CONTENT ANALYSIS OF IMPACT OF PEER MENTORING ON ACADEMIC DEVELOPMENT IN UNIVERSITY EDUCATION	Dr. Huriye Göncüoğlu-Bodur Deniz GÜNAY	Ege University, Türkiye
SURGICAL INTERVENTIONS IN OPERATING ROOMS AFTER MAJOR EARTHQUAKES	Gül Özlem YILDIRIM	Ege University, Türkiye

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Session -1 / Hall-7
12.06.2023
Moderator: Dr. CHIKHA Maria
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 10:00 – 12:00

TITLE	AUTHOR(S)	AFFILIATION
GOLD NANOPARTICLES APPLICATION IN CANCER CHEMOTHERAPY	R. Devi	Bharath Institute of Higher Education and Research, Selaiyur, Chennai, India.
IMPACT OF METHYLENETETRAHYDROFOLATE REDUCTASE GENE POLYMORPHISM ON INCIDENCE OF TUMOR GROWTH AND THALASSEMIA	Mahira Amirova, Gulnara Azizova, Arzu Dadashova	Azerbaijan Medical University, Baku
GREEN SYNTHESIS OF MAGNETIC IRON OXIDE NANOPARTICLES (Fe3O4 NPs) FOR IMAGING AND BRAIN CANCER TREATMENT	M. Asif, M.Fakhar-e-Alam, Muaazam Ali, M.Nasir, M.Adnan, M.Irfan	International university of Kyrgyzstan. GC university Faisalabad, Pakistan
OVARIAN CARCINOMATOSIS MICROENVIRONMENTS INDUCE EPITHELIAL-MESENCHYMAL-TRANSITION AND UP-REGULATE PROTEASE-PROCOAGULANT ACTIVITY IN MESOTHELIAL CELLS	Shah Shahid, Aldybiat Iman, Ullah Matti, Kaci Rachid, Assaf Alassaf, Eveno Clarisse, Pocard Marc, Mirshahi Massoud	Sorbonne Paris Cité-Paris Diderot University, France Government College University Faisalabad, Pakistan
NATURAL OCCURRING RADIONUCLIDES GROSS ALPHA AND BETA ACTIVITY CONCENTRATION AND ANNUAL COMMITTED EFFECTIVE DOSES OF SOME GHANAIAN MEDICINAL PLANTS	Lordford Tettey-Larbi, Esther Osei Akuo-ko, Amin Shahrokhi, Edit Tóth-Bodrogi, Tibor Kovács	Institute of Radiochemistry and Radioecology, University of Pannonia
SECONDARY METABOLITE CONTENT AND ANTI-HYPERGLYCEMIC EFFECT OF METHANOL LEAF EXTRACT OF Momordica charantia	Sule Ajuma Fatima, Oguche Mercy, Abaniwo Rose Mafo	Prince Abubakar Audu University, Anyigba, Kogi State, Nigeria
PHYTOCHEMICAL CONSTITUENTS AND ANTIMICROBIAL ACTIVITY OF METHANOL CRUDE EXTRACT OF Daniellia Oliveri STEM BARK	Kabiru Bashir Ahmad Hassan Dahiru Kabiru Ansar Bilyamin Adam Elisha Promise Ebun	Federal University Lokoja Federal University Wukari
JUICING UP NEUROPROTECTION: EXPLORING PUNICALAGIN'S POTENTIAL AS A THERAPEUTIC AGENT FOR MITOCHONDRIAL BIOGENESIS IN PARKINSON'S AND OTHER NEURODEGENERATIVE DISEASES	Disha G Dr. Panadreesh M D	Adichunchangiri University, Research Scholar, Department of Biochemistry, Mandya, India
EVALUATION OF MILK PRODUCTION OF CAMEL QUALITATIVELY AND QUANTITATIVELY DURING THE FIRST STAGE OF LACTATION	Dr. CHIKHa Maria Prof. Dr. KHENENOU Tarek Dr. GHERISSI Djalel Eddine Prof. Dr. Sabry M. El-Bahr	University of Souk-Ahras, Algeria King Faisal University, Al-Ahsa, Saudi Arabia Alexandria University, Egypt
THE CHARACTERIZATION OF MILKING FEMALE CAMEL IN CAMEL DAIRY PLANT	Dr. CHIKHa Maria Prof. Dr. KHENENOU Tarek Dr. GHERISSI Djalel Eddine Prof. Dr. Sabry M. El-Bahr	University of Souk-Ahras, Algeria King Faisal University, Al-Ahsa, Saudi Arabia Alexandria University, Egypt

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Session -2 / Hall-6
12.06.2023
Moderator: Assist. Prof. Dr. Ece Avuloğlu YILMAZ
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 12:30 – 14:30

TITLE	AUTHOR(S)	AFFILIATION
TWO CASE WITH DOUBLE CYSTIC DUCT VARIATION DETECTED DURING LAPARASCOPIC CHOLECYSTECTOMY	Alpaslan Fedayi Çalta	Bandırma On Yedi Eylül University, Türkiye
ANALYSIS OF RESULTS OF LAPAROTOMIC AND LAPAROSCOPIC TREATMENT OF CARDIAC ACHALASIA	Valeh Rahimov	Azerbaycan Tıp Universitesi, Azerbaycan
CARE DEPENDENCY IN ADULTS WITH CHRONIC DISEASES	Ezgi Özge GELEKÇİ Sevda EFİL	Çanakkale Onsekiz Mart University, Türkiye
ASSOCIATION BETWEEN FRAILTY AND FALLS RISK IN ADULTS AGED 65 YEARS AND OLDER WITH TYPE 2 DIABETES	Hatice YILMAZ Nazmiye ÇIRAY	Ege University, Türkiye
EVALUATION OF CLINICOPATHOLOGICAL FEATURES OF COLON ADENOCARCINOMA	Bayram Yılmaz Yılmaz Baş Emin Rençber	Hitit University, Türkiye Çorum İl Sağlık Müdürlüğü, Halk Sağlığı, Çorum, Türkiye
IN VITRO CYTOTOXIC EFFECTS OF NANOPARTICLES OBTAINED FROM CLADONIA FURCATA LICHEN BY GREEN SYNTHESIS, ON COLON CELL LINES	Ece Avuloğlu YILMAZ	Amasya University, Türkiye
LIPOMA OF FILUM TERMINALE	Betül Sevindik Nadire Ünver Doğan Emine Uysal	Selcuk University, Türkiye

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Session -2 / Hall-7
12.06.2023
Moderator: Assist. Prof. Dr. Ms. Happy Baglari
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 12:30 – 14:30

TITLE	AUTHOR(S)	AFFILIATION
THE IMPACT OF HEALTH DIPLOMACY ON TURKIYE-AFRICA RELATIONS IN THE ERA OF COVID-19 PANDEMIC	Zainul Abideen JIBRIL	Adamawa State University, Faculty of Social and Management Sciences, Department of Political Science, Nigeria.
SARS-CoV-2 AND ANTIDEPRESSANTS: WAS IT ALL STRESS?	Ilyes Zatla Wafa Lemerini Lamia Boublenza	Faculty of Natural and Life Sciences, Earth and Universe Sciences. Department of Biology. University of Tlemcen, Algeria
EUROPE IN THE FACE OF COVID-19	Ilyes Zatla Lamia Boublenza Amina Boublenza	Faculty of Natural and Life Sciences, Earth and Universe Sciences. Department of Biology. University of Tlemcen, Algeria
SURVEY OF VACCINATION RATES AGAINST COVID-19 AT THE UNIVERSITY OF TLEMCEN	Ilyes Zatla Lamia Boublenza Soumia Zair Nesrine Diab	Faculty of Natural and Life Sciences, Earth and Universe Sciences. Department of Biology. University of Tlemcen, Algeria
THE DRUG ABUSE DURING COVID 19 AND ITS IMPACT ON MENTAL HEALTH IN YOUTH	Ms. Happy Baglari, Ms. Violeena Choudhury	Assam down town University
KNOWLEDGE, ATTITUDE AND PRACTICE OF RELIGIOUS LEADERS ON COVID-19 IN KANO: A COMPARATIVE SURVEY IN NORTH-WESTERN NIGERIA	Sarki, A.M, Ajiya, J.L, Mujahid, N.S, Sani, N.M, Ihesiulor, G.U, Rogo, LD	Aminu Kano Teaching Hospital, Kano State, Nigeria Federal University Dutsin-Ma, Katsina State, Nigeria Kano University of Science and Technology, Kano State, Nigeria Federal University Dutse, Jigawa State, Nigeria Bayero University Kano

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Session -3 / Hall-6
12.06.2023
Moderator: Assist. Prof. Dr. Oğuzhan ÖZDEMIR
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 15:00 – 17:00

TITLE	AUTHOR(S)	AFFILIATION
A RARE CASE: TRACHEOESOPHAGEAL FISTULA DUE TO NASOGASTRIC TUBE	Özkul Yılmaz ÇOLAK	Ondokuz Mayis University, Türkiye
HEALTH SERVICES IN DISASTERS: A LITERATURE REVIEW OF PALLIATIVE PATIENTS	Ayşenur MODANLIOĞLU Fulya SAĞ KARA Gülseren KESKİN	Ege University, Türkiye
APPROACH AND SOLUTION SUGGESTIONS TO INDIVIDUALS EXPOSED TO NATURAL DISASTER	Fulya SAĞ KARA Ayşenur MODANLIOĞLU Gülseren KESKİN	Ege University, Türkiye
THE EFFECT OF HIGH PROTEIN ENTERAL NUTRITION ON BLOOD FINDINGS AND MALNUTRITION IN INTENSIVE CARE UNIT PATIENTS	Nevin BORZAN Fatma Hülyam Eren	Doğu Akdeniz University, Türkiye
RELATIONSHIP WITH MAGNESIUM AND DIABETES MELLITUS	İrem Serra Pekşen Hülya Kamarlı Altun	Akdeniz University, Türkiye
DETERMINATION OF CHEMICAL COMPOSITION, ANTIMICROBIAL AND ANTIOXIDANT PROPERTIES OF *SALVIA OFFICINALIS* ESSENTIAL OIL	Oğuzhan Özdemir	Batman University, Türkiye
BOTOX APPLICATIONS IN DENTISTRY	Pelin AÇIK Fatih SARI	Gaziantep University, Türkiye
LAETRILE (AMYGDALIN OR VITAMIN B17) TREATMENT IN BREAST CANCER	İlayda Özyurt Hacı Ömer YILMAZ	Üsküdar University, Türkiye Gümüşhane University, Türkiye
EFFECT OF PROPOLIS SUPPLEMENTATION ON CARDIOVASCULAR DISEASE, LIPID PROFILE AND ATHEROGENIC RISK	Dilara UĞRAŞKAN Hacı Ömer YILMAZ	Üsküdar University, Türkiye Gümüşhane University, Türkiye

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Session -3 / Hall-7
12.06.2023
Moderator: Dr. Priya J
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 15:00 – 17:00

TITLE	AUTHOR(S)	AFFILIATION
PRELIMINARY CHARACTERIZATION OF A LOCAL HERBAL EXTRACT FROM CUPRESSACEAE SPECIES	Fouzia Benoudjit Rania Sabrine Bouabdallah	M'hamed Bougara University, Boumerdès, Algeria.
THE INFLUENCE OF THE EXERCISE LOAD MONITOR ON BASKETBALL PLAYERS	FERDINAND MARA MIGENA PLASA	Sports University of Tirana, Albania.
ASSESSING THE CURRENT STATUS OF MEN'S FUTSAL FOOTBALL TRAINING MOVEMENT IN HAI CHAU DISTRICT, DA NANG CITY	Nguyen Huu Thinh Mai Thi Thuy	Danang Sport University
NEW ASPECTS OF HYPERSTRUCTURES IN GENETICS	Andromeda Sonea	Iasi University of Life Sciences, Romania
ASSOCIATED RISK FACTORS WITH PREMATURE BIRTH AT MATERNITY HOSPITALS IN MOSUL CITY	Abdulrahman Mazin Hashim Ms. Dumoa Mohammad Saeed Saleh	University of Mosul – College of Nursing
THE NEED FOR THE KNOWLEDGE OF ADOLESCENCE PSYCHOLOGY IN DAILY LIFE	Dr. Priya J Ms. Jaya Varsha E	CHRIST (Deemed to be University), Bangalore, Karnataka, India
THE PSYCHOMETRIC PROPERTIES OF THE MALAY VERSION OF THE GAMING MOTIVATION INVENTORY (M-GMI) IN THE CONTEXT OF MALAYSIAN YOUNG ADULTS	Nur Laila Azzwa Nordin, Nor Ba'yah Abdul Kadir, Rusyda Helma Mohd, Mohd Rizal Abdul Manaf, Normaliza Ab Malik	Universiti Kebangsaan Malaysia Kuala Lumpur, Malaysia Universiti Sains Islam Malaysia, Kuala Lumpur, Malaysia
EFFECT OF NUTRITION ON PREECLAMPSIA A MULTICENTRE CASE-CONTROL STUDY IN ETHIOPIA	Mulualem Endeshaw, Fantu Abebe, Melkamu Bedimo, Anemaw Asart	Rift Valley University, Lancha Campus, Addis Ababa, Ethiopia PSE of Health Professionals, iNGO, Bahir-Dar, Ethiopia Bahir-Dar University, Bahir-Dar, Ethiopia
APTAMERS: A PROMISING TOOL AGAINST VARIOUS DISEASES AND THEIR APPLICATIONS	K.R.Padma K.R.Don	Sri Padmavati Mahila VisvaVidyalayam (Women's) University, Tirupati, AP Bharath Institute of Higher Education and Research (BIHER) Bharath University, Chennai, Tamil Nadu, India

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Session -1 / Hall-6
13.06.2023
Moderator: Assist. Prof. Dr. Nurcan ERBİL
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 10:00 – 12:00

TITLE	AUTHOR(S)	AFFILIATION
Lamium SPECIES AS A NATURAL ANTIMICROBIAL AGENT AND SOURCE OF ANTIOXIDANTS	Nurcan ERBİL Vesile DÜZGÜNER	Ardahan University, Türkiye
COMPARISON OF BIOCHEMICAL, MICROBIOLOGICAL, AND TOXICOLOGICAL PROPERTIES OF WILD AND CULTIVATED SOUR CHERRY GENOTYPES	Nurcan ERBİL Zehra Tuğba MURATHAN Mehmet ARSLAN	Ardahan University, Türkiye Malatya Turgut Özal University, Türkiye
DETECTION OF MICROORGANISM IN INFECTED ROOT CANALS IN PATIENTS WITH DIABETES MELLITUS USING PCR TECHNIQUE	Sevinç AKTEMUR TÜRKER Gülhan Avcı Fusün CÖMERT	Zonguldak Bülent Ecevit University, Türkiye
THE EFFECT OF CHRYSIN ON OXIDATIVE STRESS AND SOME CYTOKINE LEVELS IN RATS WITH INTESTINAL TOXICITY INDUCED BY ISONIAZID	Hasan ŞİMŞEK Fatih Mehmet KANDEMİR	Aksaray University, Türkiye
REMOVING PANTİHOSE AS A FOREIGN OBJECT FROM THE VAGINA: CASE REPORT	Utku Berkay AKALIN Mustafa KARA	Ahi Evran University, Türkiye
MECHANICAL METHOD OF INDUCTION OF LABOUR: CERVICAL RIPENING BALON	Büşra YOLCU Parisa HADAVİBAVİLİ Nazlı ÜNLÜ BIDIK Yasemin HAMLACI BAŞKAYA	Sakarya University, Türkiye
FIRST REPORT OF *CALIGUS BONITO* WILSON C.B., 1905 (COPEPODA:CALIGIDAE) PARASITIC ON LITTLE TUNNY, *EUTHYNNUS ALLETTERATUS* (RAFINESQUE, 1810), FROM THE MEDITERRANEAN WATERS OFF THE TURKISH COAST	Seyit Ali KAMANLI	Burdur Mehmet Akif Ersoy University, Türkiye
PRENATAL CARE RECEIPT IN TURKEY AND AFFECTING FACTORS: A SYSTEMATIC REVIEW OF GRADUATE THESES	Ahsen DEMİRHAN KAYACIK Semiha ÜNKAZAN Kevser İLÇİOĞLU	Sakarya University, Türkiye
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Session -1 / Hall-7
13.06.2023
Moderator: Major Gheorghe GIURGIU
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 10:00 – 12:00

TITLE	AUTHOR(S)	AFFILIATION
THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS	Major Gheorghe GIURGIU Prof. dr. Manole COJOCARU	Deniplant-Aide Sante Medical Center, Biomedicine, Bucharest, Romania Titu Maiorescu University
CELLULOSE GRAFTED POLY ACRYLIC ACID DOPED MANGANESE OXIDE NANORODS AS NOVEL PLATFORM FOR CATALYTIC, ANTIBACTERIAL ACTIVITY AND MOLECULAR DOCKING ANALYSIS	Ali Haider	Nawaz Shareef University of Agriculture (MNSUA), Pakistan
OCCURRENCE OF EIMERIA SPECIES IN NATURALLY INFECTED DOMESTIC RABBITS (ORYCTOLAGUS CUNICULUS) IN NORTH OF KARBALA PROVINCE, IRAQ	Firas Alali, Marwa Jawad, Asaad Sh. Alhesnawi	University of Kerbala, Karbala, Iraq
POTENTIAL THERAPEUTIC EFFECT OF ASHWAGANDHA (WITHANIA SOMNIFERA) EXTRACT AGAINST NEUROLOGIC COMPLICATIONS OF INDUCED DIABETES IN MALE RATS	Heba A. Hashem, Zohour I. Nabil, Heba N. Gad EL-Hak	Suez Canal University, Ismailia, Egypt
THE GUT-BRAIN-SKIN AXIS IN ACNE: IMPACT OF POLENODERM	Major Gheorghe Giurgiu Prof. dr. Manole Cojocaru	Deniplant-Aide Sante Medical Center, Biomedicine, Bucharest, Romania Titu Maiorescu University, Faculty of Medicine, Bucharest, Romania
THE ANTI-DIABETIC POTENTIAL OF CRATEROSIPHON SCANDENS LEAVES ON ALTERED HAEMATOLOGICAL AND BIOCHEMICAL PARAMETERS OF ALLOXAN-INDUCED DIABETIC RATS	Christian Chijioke Amah, Ikechukwu Jacob Okoro, Obiora Celestine Ugwu, Ursula Chidimma Obelenwa	University of Nigeria, Nsukka, Enugu State, Nigeria Enugu State University of Science and Technology, Enugu State Nigeria Alex Ekwueme Federal University, Ndufu-Alike, Ebonyi state Nigeria
EVALUATION OF PHYTOCHEMICAL, MINERAL AND VITAMIN C CONTENTS OF RADISH (Raphanus sativus L.) ROOTS AS INFLUENCED BY PHOSPHORUS FROM POULTRY MANURE	AyanfeOluwa, O. E., Jokanola, O. O., Komolafe, A. F., Kayode, C. O. and D. O. Ogunleti	Federal College of Agriculture, Nigeria
THE POTENTIAL OF RUMEX OPTUSIFOLIUS AS AN ANTI-INFLAMMATORY AGENT	Marvel Reuben Suwitono, Ivonne Rundengan Panjaitan, Titin Sulastri	Universitas Advent Indonesia

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Session -2 / Hall-6
13.06.2023
Moderator: Assist. Prof. Dr. Murat Arı
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 12:30 – 14:30

TITLE	AUTHOR(S)	AFFILIATION
ASSOCIATE STUDENTS' ATTITUDES TO MUSEUM VISITS: DOKUZ EYLUL UNIVERSITY VOCATIONAL SCHOOL OF HEALTH SERVICES	Ayşe Pınar Erçetin Tijen Erçal	Dokuz Eylül University, Türkiye
THE INVESTIGATION OF OBSESSIVE BELIEFS AND METACOGNITIVE BELIEFS IN PANIC DISORDER PATIENTS	Gül KIR E. Ercüment YERLİKAYA	Çağ University, Türkiye Çukurova Ü University, Türkiye
GLOBAL TRENDS IN UNMET NEED FOR FAMILY PLANNING AND PROSPECTS FOR THE FUTURE	Yasmin Aisha Ahmed Türkan Günay	Dokuz Eylul University, Türkiye.
MICROBIOTA AND OBEZITY	Murat Arı Serdal Öğüt	Aydın Adnan Menderes University, Türkiye
PERSPECTIVE ON OCCUPATIONAL HEALTH AND SAFETY IN GEOGRAPHICAL FOOD PRODUCERS INVESTIGATION ON DETERMINATION: EZINE CASE	Büşra YÜKSEL R.Cüneyt ERENOĞLU	Çanakkale Onsekiz Mart University, Türkiye
PHYSIOLOGICAL AND PSYCHOLOGICAL EFFECTS OF LAUGHTER YOGA AND ITS PLACE IN NURSING PRACTICES	Seçil SAĞBAŞ Aylin CAN	Prof. Dr. Cemil Taşçıoğlu Hastanesi Şişli, İstanbul Munzur University, Türkiye.
THE EFFECTS OF MINDFULNESS TECHNIQUE (CONSCIOUS AWARENESS) APPLIED IN THE PREOPERATIVE PERIOD ON THE PATIENT IN THE POSTOPERATIVE PERIOD	Aylin CAN Seçil SAĞBAŞ	Prof. Dr. Cemil Taşçıoğlu Hastanesi Şişli, İstanbul Munzur University, Türkiye
CAN MUSTARD OIL BE USED FOR NEWBORN SKIN CARE?	Buse İnan Dilek MENEKŞE	Sakarya University, Türkiye

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Session -2 / Hall-7
13.06.2023
Moderator: Dr. Mirwaisuddin Ansar
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 12:30 – 14:30

TITLE	AUTHOR(S)	AFFILIATION
EFFICIENCIES OF THE COAGULATION-FLOCCULATION PROCESS IN THE REMOVAL OF TURBIDITY FROM HOSPITAL WASTEWATER	Barkahoum Boudoumi Saadia Guergazi Nouioua Asma	Research Laboratory in Subterranean and Surface Hydraulics, University of Biskra, PO Box 145, Biskra, 07000, Algeria.
STUDY OF THE CAUSES OF NEONATAL MORTALITY IN THE ABU ALI SINA REGIONAL HOSPITAL IN BALKH PROVINCE IN THE FIRST QUARTER OF 2021	Dr. Mirwaisuddin Ansari, Prof. Abdullah Darman Rahimzad, Assoc. Prof. Dr. Abdul Samad Behzad	Abu Ali Sina Regional Hospital, Balkh Province Balkh University
ASSESSING THE IMPACT OF AIR POLLUTION ON HUMAN RESPIRATORY HEALTH: A SENSOR-BASED APPROACH FOR MASK USAGE AND TIME LIMIT RECOMMENDATIONS	M. Sumanth Kumar, M.Sasi Kumar, P.Rahul Shankar, Mohan Kumar GB	
POTENTIAL DRUG-DRUG INTERACTIONS WITH ANTICOAGULANTS AMONG POST-OPERATIVE PATIENTS AT A TERTIARY CARE INSTITUTE IN PAKISTAN: A COMPREHENSIVE ANALYSIS	Ahmad Ullah Humza, Abdul Hameed, Sadia Ghousia Baig, Afshan Siddiq, Attaullah Khan,Saima Saleem, Jibran Bin Yousuf	National Institute of Cardiovascular Diseases (NICVD), Karachi, Pakistan Sindh Institute of Management & Technology (SMIT), Karachi, Pakistan University of Karachi, Pakistan.
INVESTIGATING THE PRACTICE OF DENTAL HYGIENE AMONG STUDENTS OF INTEGRATED TSANGAYA MODEL SCHOOLS IN KANO STATE NIGERIA	Haruna B. Murtala Rn, Adcon, Pgde, Phd Dahiru Abdullahi Rn, Aen, Phd	lincoln University College, Malaysia
LIFE SCIENCES	Shailja Sharma	Banasthali Vidyapith
EVALUATION OF 'COMMUNITY-POLICY' STRATEGY IN PREVENTION OF HIV/AIDS IN NGURU LOCAL GOVERNMENT AREA, YOBE STATE, NIGERIA	Mainako M.D. Jamilu Lawal Ajia Yahaya Sabo Hassan	Federal University Dutsin-Ma, Katsina State, Nigeria.
THE IMPORTANCE OF NICKEL TITANIUM IN THE ENDODONTIC TREATMENT: A SCIENTIFIC GUIDED CLINICAL APPROACH	Seracchiani Marco Maurilio D'Angelo Alessio Zanza Rodolfo Reda Rosemary Abbagnale Chiara Seracchiani Dario Di Nardo Luca Testarelli	Sapienza University of Rome

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Session -3 / Hall-7
13.06.2023
Moderator: Assist. Prof. Dr. Arzu KAYA KOÇDOĞAN
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 15:00 – 17:00

TITLE	AUTHOR(S)	AFFILIATION
INFLUENCE OF MOTOR ACTIVITY AND PHYSICAL FACTORS ON ANIMAL DEVELOPMENT (REVIEW)	Nargiz Mahmudova, Gunay Hadjiyeva	Ministry of Science and Education Institute of Physiology named after academician Abdulla Garayev, Baku, Azerbaijan
INVESTIGATION OF THE EFFECT OF CINNAMALDEHYDE ON LEPTIN-EXPOSED PC-3 PROSTATE CANCER CELLS VIA PI3K/MAPK SIGNAL TRANSDUCTION PATHWAYS	Amra Halugic Şen Feral Öztürk Gürkan Yiğittürk Volkan Yaşar Süleyman Bakar	Muğla Sıtkı Koçman University, Türkiye M.Sc. in Histology and Embryology
INVEGESTION OF JNK INHIBITION ON COLON CANCER STEM CELL BEHAVIOR	Yeşim Kurkutçu Berrin Ozdil Taha Kadir Yesin Cemile Sinem Asker Abdikan Eda Açıkgöz Aras Gezer Hüseyin Aktuğ	Ege University, Türkiye Van Yüzüncü Yıl University, Türkiye
DRUG RESISTANCE IN CANCER	Arzu KAYA KOÇDOĞAN	Istanbul Gelisim University, Türkiye
EVALUATION OF CLINICOPATHOLOGICAL FINDINGS OF CENTRAL NERVOUS SYSTEM HEMATOLOGICAL MALIGNITIES	Gülsün GÜLTEN Nagihan YALÇIN Nilay Şen Türk	Pamukkale University, Türkiye
MOUSE CANCER MODELS FOR BIODISTRIBUTION STUDIES	Süleyman Can ÖZTÜRK	Hacettepe University, Türkiye
THE ROLE OF MAGNETIC RESONANCE DEFECOGRAPHY IN THE DIAGNOSIS OF PELVIC ORGAN PROLAPSE: A CASE REPORT	Melike Taşci Nadire Ünver Doğan Emine Uysal Ahmet Kağan Karabulut Hüsnü Alptekin Zeliha Fazlıoğulları	Selcuk University, Türkiye

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Session -3 / Hall-8
13.06.2023
Moderator: Dr. Swarupa Rani gurram
Meeting ID: 852 8194 6857 / Passcode: 121212
Ankara Local Time: 15:00 – 17:00

TITLE	AUTHOR(S)	AFFILIATION
A REVIEW ON FAST-DISSOLVING TABLETS	SS. Shadhika, R. DEVI, Dr.R. SRINIVASAN, Dr. V. Rakshana	Bharath Institute of Higher Education and Research, Chennai
MOLECULAR DOCKING STUDIES AND ADMET PROPERTIES OF NEW CLASS DERIVATIVES FOR INHIBITION OF ACETYLCHOLINESTERASE (ACHE)	Fatima Daissa, Belaidi Salah, Ismail Daoud	University of Biskra, Algeria Aboubakr Belkaid University, Tlemcen, Algeria
BIOFILM FORMATION IN ESKAPE PATHOGENS	Majda Ličina Kübra Yıldırım Ahmet Yılmaz Çoban	Akdeniz University, Türkiye
NANOMEDICINE IN CARDIOVASCULAR DISEASE-APPLICATION FOR DRUG DELIVERY SYSTEM IN CVDs-ANTI-INFLAMMATORY NANOMEDICINE FOR CVDs	V.Velvizhi, Devi Raman, S. Hemalatha, Dr.R. Srinivasan, R. Jothilakshmi, S. Kalaivanan	Bharath Institute of Higher Education Research, India.
CALORIC VALUE AND PHYSICO-CHEMICAL CHARACTERISTICS OF "LA MÉDITÉRANÉENNE" ALGERIAN (CAVENDISH) GREEN BANANA FLOUR	Ines Bouzoualegh Yamina Benaissa Samia Addou	Ahmed Ben Bella Oran 1 University, Algeria. Ahmed Ben Bella University, Oran, Algeria
TRANSFEROSOMES: A PROMISING NANOCAPSULATION TECHNIQUE FOR TRANSDERMAL DRUG DELIVERY	A.Sreesivasakthi, R. Devi, Dr.R.Srinivasan, R.Vasanth Kumar, E.Sam David, A.Dhavamanikandan	Bharath Institute Of Higher Education And Research, Chennai, Tamil Nadu, India
ROBOTIC PHARMACY SYSTEM IMPLEMENTATION	S. Keerthiga, R. Devi, Dr.R. Srinivasan	Bharath Institute of Higher Education and Research
STRONTIUM-DOPED CHROMIUM OXIDE FOR RHB REDUCTION AND ANTIBACTERIAL ACTIVITY WITH EVIDENCE OF MOLECULAR DOCKING ANALYSIS	Anum SHAHZADI Iram SHAHZADI	The University of Lahore, Punjab, Pakistan University of the Punjab, Pakistan
DEVELOPMENT OF NOVEL NANO PHOTOPROTECTIVE FORMULATION CONTAINING SPINACIA OLERACEAE	Jobin Jose, Vijisha Taniyadukkam	NGSM Institute of Pharmaceutical Sciences, Nitte, India
DESIGN, SYNTHESIS AND IN VITRO SCREENING OF NOVEL 2-Mercaptobenzothiazole-Clubbed PHENYLACETAMIDES AS POTENTIAL ANTIBACTERIAL AGENTS	Dr. Swarupa Rani gurram Dr. Mohammed Afzal Azam	Vikas College of Pharmaceutical Sciences, Rayanigudem, Suryapet,Telangana, India.
STUDY ON A NATURAL CREAM WITH EXTRACT OF MOUNTAIN TEA OF ALBANIA	Brunilda MYFTARI	University of Medicine, Tirana, Albania

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COMPARISON OF THE EFFECTS OF EXERCISE, MANUAL THERAPY AND TEEREHABILITATION ASSISTED THERAPY ON PAIN AND FUNCTIONALITY IN SUBACROMIAL IMPRESSION SYNDROME

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ÖZET

Amaç: Bu çalışma subakromiyal ağrı sendromu (SAS) tanısı almış bireylerde yüz yüze tedavi ile telerehabilitasyonun destekli tedavinin etkilerinin karşılaştırılması olarak planlandı.

Yöntem: Çalışmamıza Mardin Devlet Hastanesi'nde SAS tanısı alan, 18-55 yaş arası 76 birey dahil edildi. Bireyler kapalı zarf usulü basit randomizasyon yöntemi ile ev egzersiz grubu (EE) (n=24), manuel tedavi grubu (MT) grubu (n=26) ve telerehabilitasyon grubu (TR) (n=26) olarak 3 gruba ayrıldı. Ev egzersiz grubuna egzersiz ve hasta eğitimi verildi. MT grubu hastaları aynı ev egzersizleri ve hasta eğitimi yanında yüzyüze olarak manuel tedaviye (pasif) alındı. Telerehabilitasyon grubundaki hastalara aynı ev egzersizi ve hasta eğitimi verildi ve görüntülü ortamda egzersizler ve manuel tedavi (aktif) uygulamaları izlendi. Gruplara tedavi öncesi, tedavi sonrası 8. hafta ve takip 12. hafta ağrıyı değerlendirmek için ağrı seviyeleri Vizüel Ağrı Skalası (VAS) ve McGill Ağrı Ölçeği Kısa Formu ile fonksiyonellik seviyeleri Hızlı Kol-Omuz-El Sorunları Anketi (Q-DASH) ve Omuz Ağrı ve Disabilite Anketi (SPADİ) değerlendirildi. Ayrıca 8 haftalık tedavi sonrası hasta memnuniyet düzeyleri VAS-Memnuniyet 0-10 arası ölçüldü.

Bulgular: Gruplar Arası VAS ve McGill Malzec ağrı ölçeklerine bakıldığında MT ve TR gruplarında anlamlı bir fark bulunmazken ($p<0.05$), her iki grupta da EE grubuna göre anlamlı farklılık vardı ($p>0.05$). Q-DASH ve SPADİ skorlarında MT grubu her iki gruba göre anlamlı farka sahipti ($p>0.05$). VAS-Memnuniyet düzeyleri MT ve TR gruplarında benzer etkiye sahipken ($p<0.05$), her iki grupta da EE grubuna göre daha anlamlı olduğu görüldü ($p>0.05$).

Sonuç: Bu çalışmada yüzyüze manuel terapi ve telerehabilitasyon destekli manuel tedavi uygulamasının SAS hastalarda etkilerinin benzer olduğu görüldü. Dolayısıyla pandemi ortamı veya ulaşımın limitli olduğu benzer koşullarda telerehabilitasyon yöntemi bu hastalarda kullanılabilir.

Anahtar kelimeler: Telerehabilitasyon, Subakromiyal Ağrı Sendromu, Manuel Tedavi

ABSTRACT

Objective: This study was planned to compare the burden supported by face-to-face treatment and telerehabilitation in individuals with subacromial pain syndrome (SAS).

Method: Our study included 76 people aged 18-55, who were registered with SAS at Mardin State Hospital. Individuals were divided into 3 groups, as home exercise group (EE) (n=24), manual therapy

group (MT) group (n=26), and telerehabilitation group (TR) (n=26) by simple closed-envelope randomization method. Home exercise group exercise and patient education were given. MT group practices were manually placed face-to-face (passive) alongside the same home exercises and patient education. The telerehabilitation durations were the same as home exercises and patient education, and video strength exercises and manual therapy (active) applications were followed. Pain levels to reduce pain at pre-service, post-treatment 8th week and follow-up 12th week Functional levels with Visual Pain Scale (VAS) and McGill Pain Scale Short Form Rapid Arm-Shoulder-Hand Problems Questionnaire (Q-DASH) and Shoulder Pain and Disability Questionnaire (SPADI). In addition, after 8 weeks of treatment, the patient satisfaction rate was measured between 0 and 10 VAS-Satisfaction.

Results: While there was no difference in the overall MT and TR facets of VAS and McGill Malzec pain scales between groups ($p<0.05$), both groups had overall dimensions compared to the EE group ($p>0.05$). In Q-DASH and SPADI scores, the difference was significant ($p>0.05$) as the MT group evaluated both groups. While the VAS-Satisfaction structure had similar usage in MT and TR appearances ($p<0.05$), it was found to be more important in both groups than EE groups ($p>0.05$).

Conclusion: It was found to be similar to SAS patients affected by face-to-face manual therapy and telerehabilitation-assisted manual therapy. Therefore, this device can be used as a telerehabilitation method in a pandemic environment or similar tissues where access is limited.

Keywords: Telerehabilitation, Subacromial Pain Syndrome, Manual Therapy

THE IMPACT OF HEALTH DIPLOMACY ON TURKIYE-AFRICA RELATIONS IN THE ERA OF COVID-19 PANDEMIC

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ABSTRACT

Health diplomacy is a crucial aspect of international relations, especially in the era of COVID-19 pandemic. The pandemic has affected every aspect of human life, including the way countries interact with each other. While there are negative impacts of the pandemic on global health and economic systems, there is an opportunity to highlight the role of health diplomacy in improving cooperation between countries, especially between Türkiye and African countries. This study aims to explore the impact of health diplomacy on Türkiye's relations with African countries during the COVID-19 pandemic. The study uses a qualitative research design and is based on a content analysis of relevant academic articles, reports, and policy papers. The findings of this study reveal that Türkiye's health diplomacy efforts during the COVID-19 pandemic have positively impacted its relations with African countries. Türkiye's humanitarian aid, medical supplies, and expertise in the field of health have been highly appreciated by African countries. Türkiye's health diplomacy approach has also helped to strengthen its economic and political ties with African countries. In conclusion, this study suggests that health diplomacy can be an effective tool in promoting positive relationships between countries, especially during times of crisis such as the COVID-19 pandemic. This research highlights the importance for countries to invest in health diplomacy efforts, as it can lead to long-lasting partnerships and mutual benefits.

Keywords: Health diplomacy, Türkiye, Africa, COVID-19, Healthcare assistance.

LAPARASKOPİK KOLESİSTEKTOMİ SIRASINDA SAPTANAN ÇİFT SİSTİK KANAL VARYASYONLU İKİ OLGU

TWO CASE WITH DOUBLE CYSTIC DUCT VARIATION DETECTED DURING LAPARASCOPIC CHOLECYSTECTOMY

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ÖZET

Giriş ve amaç: Laparoskopik Kolesistektomiden önce olası komplikasyonların önlenebilmesi veya en aza indirilebilmesi için cerrahi anatominin ve anatomik varyasyonların bilinmesi gerekmektedir. Hepatobiliyer sistemde intrahepatik ve ekstra hepatik düzeyde çok sayıda varyasyonlar mevcuttur. Bu çalışmada kronik taşlı kolesistit nedeniyle elektif şartlarda ameliyata alınan ve operasyon sırasında karşılaştığımız bir anatomik varyasyon olan çift sistik kanal saptanan iki adet olguyu değerlendirmek amaçlanmıştır.

Olgu sunumu: 49 ve 61 yaşında 2 bayan hasta 2023 ocak ve şubat aylarında kliniğimize karın ağrısı şikayeti ile başvurdu. Kronik taşlı kolesistit tanısı konarak elektif şartlarda operasyon planlandı ve 61 yaşıdaki bayan hasta şubat 2023 tarihinde 49 yaşındaki bayan hasta nisan 2023 tarihinde elektif operasyon amaçlı kliniğe yatırıldı. Laparoskopik kolesistektomi uygulandı. Her iki hastadada operasyonda sistik kanal izole edildi ve disektörle dönüldü. Hastaların her ikisindede anatomik olarak koledok trasesi görüldü sistik kanal klipslendi ve kesildi sistik kanalda çift lümen olduğu görüldü sistik güdük ve koledok trasesi tekrar kontrol edildi her iki olgudada çift sistik kanal varyasyonu olduğu görüldü .Çıkan piyeste safra kesesi kontrol edildi çift sistik kanal varyasonu olduğu teyit edildi Hastalar ameliyat sonrası 1. günde diyeti düzenlendi. Rejimi tolere eden hastaların kliniği ve laboratuvar değerleri iyi olması üzerine 2. gün şifa ile taburcu edildiler.

Tartışma: Laparoskopik hepatobiliyer cerrahi girişimler öncesinde olası komplikasyonların önüne geçilebilmesi için anatominin ve potansiyel varyasyonların bilinmesi gerekmektedir. Biliyer sistemde intrahepatik ve ekstra hepatik düzeyde gelişimsel çok sayıda varyasyonlar mevcuttur (1). Komplikasyonların %49' u intraoperatif olarak fark edilip yine laparoskopik müdahalelerle çözülmektedirler. Bizim karşılaştığımız her iki olgudada laparoskopik kolesistektomi uygulanan hastalarda hastane yatış süreleri genellikle 2 gündü. Cerrahi girişim öncesi elektif hastalarda çoğu zaman ayrıntılı tetkik yapılamamaktadır. Cerrahın her zaman şüpheci olması ve tetkiklerle anatomik varyasyonların gösterilmesi ile olası iyatrojenik travmalardan kaçınılabilinir. Genç hastalarda ve öyküsünde tekrarlayan pankreatit/ kolanjit atağı geçirenlerde , ERCP gereksinimi olanlarda ve malignitelerde varyasyon riski açısında daha dikkatli cerrahi sırasında varyasyonlar açısından daha dikkati olmak gerekir. Burada sunduğumuz her iki hastadada USG dışında ek görüntüleme yapılmamış ve hasta öykülerinde yukarıda sayılan predispozan faktörler mevcut değildi.Hiçbir predispozan faktör olmadanda varyasyonlar olabilmektedir bu nedenle her laparaskopik kolesistektomi ameliyatında varyasyonlar açısından uyanık olmak grektiğini düşünmekteyiz.

Sonuç: Tüm laparoskopik cerrahilerde olduğu gibi safra yolu yaralanmalarında ve sorunun çözümünde de cerrahın tecrübesi,laparaskopi sistemlerinin görüntü kalitesi varyasyonların öngörülebilmesi önemli bir faktörü oluşturur. Ameliyatta varyasyonu fark edip laparoskopik bitirilebilir. Ancak laparaskopik olarak sonlandırılamayan hastalarda açık cerrahiye geçilerek doğabilecek komplikasyonlar engellenebilir.

ABSTRACT

Introduction and purpose: Before laparoscopic cholecystectomy, surgical anatomy and anatomical variations should be known in order to prevent or minimize possible complications. There are many variations in the hepatobiliary system at the intrahepatic and extrahepatic levels. In this study, it was aimed to evaluate two cases who were operated under elective conditions due to chronic calculous cholecystitis and who were found to have double cystic ducts, an anatomical variation we encountered during the operation.

Case report: Two female patients, aged 49 and 61, applied to our clinic with complaints of abdominal pain in January and February 2023. A diagnosis of chronic calculous cholecystitis was made and an operation was planned under elective conditions, and a 61-year-old female patient was admitted to the clinic for elective surgery in February 2023 and a 49-year-old female patient in April 2023. Laparoscopic cholecystectomy was performed. In both patients, the cystic duct was isolated during the operation and returned with a dissector. Anatomically, common bile duct tracing was seen in both patients. The cystic duct was clipped and cut. There was a double lumen in the cystic duct. The cystic stump and common bile duct tracing was checked again. In both cases, double cystic duct variation was observed. The gall bladder was checked, and double cystic duct variation was confirmed. The diet of the patients was adjusted on the 1st postoperative day. The patients who tolerated the regimen were discharged on the 2nd day after their clinical and laboratory values were good.

Discussion: Anatomy and potential variations should be known before laparoscopic hepatobiliary surgical interventions to prevent possible complications. There are many developmental variations at the intrahepatic and extrahepatic levels in the biliary system (1). 49% of complications are recognized intraoperatively and resolved with laparoscopic interventions. In both cases we encountered, the hospital stay was generally 2 days in patients who underwent laparoscopic cholecystectomy. In elective patients before surgery, detailed examinations cannot be performed most of the time. Possible iatrogenic traumas can be avoided by always being skeptical of the surgeon and demonstrating anatomical variations with examinations. Young patients and those with a history of recurrent pancreatitis/cholangitis attacks, those who need ERCP, and malignancies should be more careful in terms of variation risk, and more attention should be paid to variations during surgery. In both of the patients we presented here, no additional imaging was performed other than USG and there were no predisposing factors listed above in the patient's histories. There may be variations without any predisposing factors. Therefore, we think that it is necessary to be alert for variations in every laparoscopic cholecystectomy operation.

Conclusion: As in all laparoscopic surgeries, the surgeon's experience and the ability to predict variations in the image quality of laparoscopy systems are important factors in biliary tract injuries and in the solution of the problem. The variation can be noticed in the surgery and it can be finished laparoscopically. However, complications that may arise can be prevented by switching to open surgery in patients who cannot be terminated laparoscopically.

THE THERAPEUTIC EFFECTS OF DENIPLANT NUTRACEUTICALS ON THE GUT MICROBIOME IN PATIENTS WITH PSORIASIS

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ABSTRACT

Background Psoriasis is a common and chronic dermatological disease considered as a systemic inflammatory disorder. A growing body of evidence highlights that intestinal dysbiosis is associated with the development of psoriasis. The gut-skin axis is the novel concept of the interaction between skin diseases and microbiome through inflammatory mediators, metabolites and the intestinal barrier. Restoration of the microbiome is a therapeutic strategy for psoriasis.

The objective of this study was to summarize the potential action of Deniplant nutraceuticals in psoriasis on inflammation.

Materials and methods We conducted a systematic review of studies investigating intestinal microbiome in psoriasis. To identify studies comparing gut microbiome composition in patients with psoriasis and normal healthy controls. The use of Deniplant nutraceuticals could be interesting in disease management**.**

Results However, the association of psoriasis with gut dysbiosis is mainly based on limited studies with small number of patients involved. All studies confirmed the association of psoriasis and gut microbiota dysbiosis. This paper provides a detailed and comprehensive systematic review regarding gut microbiome in patients with psoriasis. It is still not clear whether psoriasis is an effect or a cause of the observed disbalance between beneficial and pathogenic microbes.

Conclusion There is a significant association between alterations in gut microbial composition and psoriasis. More unified methodological standards in large-scale studies are needed to understand microbiota's contribution to psoriasis pathogenesis and its modulation as a potential therapeutic strategy. The changes in microbiome under psoriasis treatment can serve as a potential biomarker of positive response to the Deniplant nutraceuticals.

Keywords: microbiome, psoriasis, gut-skin axis, gut barrier, Deniplant nutraceuticals

CHEMICAL ANALYSIS (PHENOLIC CONTENT AND MICRO-MACRO ELEMENTS) AND HEALTH RISK ASSESSMENT OF HAWTHORN (*CRATAEGUS* SPP. L.) FRUITS

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ABSTRACT

Hawthorn (*Crataegus spp*. L.) has around 280 species in the world. The number of *Crataegus* species is estimated to be over 20 in Turkey. *Crataegus* species have long been used in folk medicine for the treatment of some diseases such as simple heart diseases.[1] In this study, phenolic content, micro and macro element content and toxic element contents of three different types of *Crataegus* (*Crataegus tanacetifolia*, *Crataegus orientalis*, *Crataegus microphylla*) collected from Şebinkarahisar region were investigated. Phenolic compounds were extracted by applying soxhelet extraction with methanol and analyzed with liquid chromatography and tandem mass spectrometry (LC-MS/MS).[2] The closed-vessel high-pressure microwave-assisted wet digestion (MWD) method was used to decompose the organic matrix of the dried fruit samples and release the elements into their solutions and, later elemental analyses were performed by inductively coupled plasma mass spectrometry (ICP-MS).[3]High amounts of epicatechin (respectively 1955, 1075, 2479 mg kg^{-1}), taxifolin (48.4, 516.9, 440.5 mg kg^{-1}) and vannilin (66.2, 106.9, 110.1 mg kg^{-1}) were found in fruits. A high amount of rutin (351.3 mg kg^{-1}) was detected in *Crataegus orientalis* species. When 60 g of fruits are consumed, they meet 17% and 22% of daily Mn needs, 32% and 14% of daily Fe needs, 156% and 219% of daily Cr needs, and 45% of Cu needs for men and women, respectively. Assuming that it is consumed three months a year for 50 years, it appears to have no toxic effects. During the same time period, it has been found that it poses a moderate risk for nickel levels in terms of carcinogenic risk. The results show that the hawthorn fruit contains high amount of certain phenolic compounds. Finally, Mn, Fe, Cu and Cr contents are quite high however, they do not pose any health risks except for Ni.

Keywords: *Crataegus spp*. L., phenolic content, epicatechin, health risk assessment, ICP-MS

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A REVIEW ON FAST-DISSOLVING TABLETS

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ABSTRACT

Aim and objective: Fast-dissolving tablets emerge as one of the popular and widely accepted dosage forms, especially for pediatric patients because of incomplete development of the muscular and nervous system and a case of geriatric patients suffering from Parkinson's disorder or hand tremors. Few solid dosage forms like capsules and tablets are present days facing the problems like difficulty in swallowing (dysphagia), resulting in many incidences of non-compliance and making the therapy ineffective. Oral dosage form and oral route are the most preferred route of administration for various drugs that have limitations like first-pass metabolism, psychiatric patients, bedridden and uncooperative patients. FDTs are disintegrating or dissolve quickly in the saliva without a need for water. **Method:** Mouth-dissolving tablets are prepared by various technologies with the aid of super disintegrants. Tablet disintegration does not only refer to the breakup of the inter-particle bonds but also relates to the liquid absorption and swelling behavior of the tablet. The study shows the use of the sessile drop method, analyzing the surface liquid absorption and swelling kinetics of four filler combinations. Conventional preparation methods are spray drying, freeze drying, direct compression, Molding, and sublimation. **Result**: Fast-dissolving tablets are designed to dissolve in saliva remarkably faster, within a few seconds (less than 60 seconds), and those are really fast-dissolving tablets. FDTs formulations contain super disintegrants to enhance the disintegration rate of a tablet in the buccal cavity. **Conclusion:** stability of dosage forms and transform into liquid form within a few seconds after its administration. As they have significant advantages as both solid and liquid dosage forms, they have potential advantages over conventional dosage forms, with their improved patient compliance, convenience, bioavailability, and rapid onset of action.

Keywords: Fast dissolving, swallowing, buccal cavity, solid dosage form.

ÖN LİSANS ÖĞRENCİLERİNİN MÜZE ZİYARETLERİNE DAİR TUTUMU: DOKUZ EYLÜL SAĞLIK HİZMETLERİ MESLEK YÜKSEK OKULU ÖRNEĞİ

ASSOCIATE STUDENTS' ATTITUDES TO MUSEUM VISITS: DOKUAZ EYLUL UNIVERSITY VOCATIONAL SCHOOL OF HEALTH SERVICES

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ÖZET

Bu çalışmanın amacı yüksek okulumuz öğrencilerinin sosyal etkinlik kapsamında, öğretmenleri ile birlikte müze ziyareti gerçekleştirmesi sonrasında müze ziyaretlerine dair tutumlarının değerlendirilmesidir.

Araştırmamız yüksekokulumuzda 2021-2022 eğitim döneminde eğitim ve öğretim gören ikinci sınıf 25 öğrenciyi kapsayan tanımlayıcı kesitsel araştırmadır. Öğrenciler gönüllülük esasına dayanarak Google Forms üzerinden "Kişisel bilgi formu" ve " Müze ziyaretlerine dair tutum ölçeğini" doldurmuştur. Veriler SPSS, 21. versiyon paket programı ile değerlendirilerek p değeri 0,05'den küçük bulgular anlamlı kabul edilmiştir.

Öğrencilerin %56 'sı kız %44 'ü erkektir. İzmir dışından eğitim için okulumuza gelen öğrenciler %52 oranında olup bu öğrencilerin daha önce müze ziyareti yapmış olma deneyimi daha fazladır. Öğrencilerin müze ziyaretlerine karşı tutumları 89,18±11,56 puan ile orta düzeyde olumlu bulunmuştur. Erkek öğrenciler kızlara oranla daha olumlu bir tutuma sahiptir.

Araştırmamız üniversiteye geçiş sürecinin özellikle de şehir dışından gelen öğrenciler için yarattığı stresi olumlu yöne taşıyıcı bir faktör olarak, yaşadıkları şehri ve tarihini tanımalarını teşvik edici etkinleri, müze ve tarihi yer ziyaretlerinin önemini ortaya koymaktadır.

Anahtar kelimeler: Müze ziyareti, şehir tarihi, üniversite yaşamı

ABSTRACT

The aim of this study is to evaluate the attitudes of our vocational school students towards museum visits after visiting the museum with their teachers within the scope of social activities.

Our research is a descriptive cross-sectional study including 25 second-year students studying at our vocational school in the 2021-2022 academic year. On a voluntary basis, the students filled out the "Personal Information Form" and the "Attitude Scale for Museum Visits" via Google Forms. The data were evaluated with SPSS, the 21st version package program, and the findings with a p value less than 0.05 were considered significant.

Fifty-six percent of the students were girls and 44% were boys. The rate of students coming to our school for education from outside of Izmir was 52%, and these students were found to have more experience of having visited a museum before. Students' attitudes towards museum visits were moderately positive with a score of 89.18±11.56. Boys were found to have a more positive attitude than girls.

Our research reveals the importance of visiting museums and historical places, as a positive factor for the stress of the transition to university, especially for students coming from outside the city, encouraging them to get to know the city and its history.

Keywords: Museum visit, city history, university life

MOLECULAR DOCKING STUDIES AND ADMET PROPERTIES OF NEW CLASS DERIVATIVES FOR INHIBITION OF ACETYLCHOLINESTERASE (ACHE)

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ABSTRACT

Our work consists in studying the interaction between the enzyme: AChE which is involved in Alzheimer's disease with 1,4-substituted-4-(1H)-pyridylene-hydrazone derivatives by the method of molecular modeling (docking) followed by a calculation of ADME properties.

First, we are particularly based on the two parameters: score energy and distances of interactions between ligands and active site residues. Subsequently, to validate the previous method and confirmed that these best ligands obtained during the calculations of molecular modeling respecting the three rules namely: Lipinski, Veber and Egan.

The analysis of the results obtained shows that the five compounds L7, L13, L15, L69 and L75 and the case of AchE have a better inhibition, this allowed us to select them as probably the best inhibitors.

Keywords: AChE, 1,4-substituted 4-(1H)-pyridylene-hydrazone derivatives, Docking, ADME, Interactions.

COĞRAFİ İŞARETLİ GIDA ÜRETİCİLERİNDE İŞ SAĞLIĞI VE GÜVENLİĞİNE BAKIŞ AÇISININ BELİRLENMESİ ÜZERİNE İNCELEME: EZİNE ÖRNEĞİ

PERSPECTIVE ON OCCUPATIONAL HEALTH AND SAFETY IN GEOGRAPHICAL FOOD PRODUCERS INVESTIGATION ON DETERMINATION: EZİNE CASE

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ÖZET

Gıda faaliyetleri, çalışanların sağlığını ve güvenliğini tehdit eden birçok unsur içermektedir. Üretim esnasında artan teknolojik gelişmeler karşısında karmaşıklaşan yapısı ve kullanılan kimyasal ürün kullanımında yaşanan artış nedeniyle artan iş kazaları ve meslek hastalıklarında belirleyici bir yere sahiptir. Bu nedenle Ezine bölgesindeki coğrafi işaretli gıdaların (peynir, zeytin ve zeytinyağı) üreticilerinin sağlık ve güvenlik risklerini nasıl algıladıklarını, bu konudaki bakış açılarını ve aldıkları önlemlerin tespit edilmesi gerekmektedir. Gıda sektörü canlı yaşamı ile çok içe içedir. Bu nedenle işletmelerde 'gıda güvenliği' hakkında çalışmalar dikkat çekmektedir. Bu durum çoğu gıda işletmesinde tüketici memnuniyeti için ürünün güvenliğinin çoğu kez üretenini güvenliğinin önüne geçtiğini göstermektedir.[1]. Bu nedenle bölgemizde önem taşıyan coğrafi işaretli gıda üreticilerini, güvenilir gıda üretirken, üretenin de güvenliği hakkında ne düşündüğünü ve alınması gereken önlemler hakkında bilgi sahibi olup olmadığını anlamak amacı ile araştırma yapılması gerekmektedir. Artan nüfusa yetecek boyutta üretimin gerçekleşmesi ve buna bağlı olarak canlı yaşamının sürdürülebilmesinde şüphesiz en önemli unsur gıda üretim faaliyetlerdir. Ancak, çoğalan ihtiyaçları karşılamak için üretim faaliyetlerden, teknolojik gelişmelerin neden olduğu daha karmaşık üretim tekniklerine geçişle birlikte gıda, çalışanların can sağlığı ve güvenliği için daha riskli çalışma ortamlarının var olduğu bir üretim sistemi haline gelmiştir. Bu çalışmanın temel amacı, Türkiye'de sağlık ve güvenlik risklerinin en çok olduğu sektörlerden birisi olan gıda sektöründe üreticilerin; sağlık ve güvenliklerine ilişkin algı ve tutumlarını etkileyen faktörleri keşfetmek ve bunlarla davranışları arasındaki ilişkiyi açıklamaktır. Bu amaç doğrultusunda, keşfedici bir çalışma olması nedeniyle katılımcıların bilgi, tutum ve algı düzeylerinin ne şekilde farklılaştığına yönelik araştırma soruları oluşturulacaktır. Buna göre katılımcıların bilgi, tutum ve algı düzeylerinin, Demografik değişkenlere (Cinsiyet, Yaş, Öğrenim durumu) göre ve İş sağlığı ve güvenliği bilgisine (bilgi sahibi olup olmadığı ve bilgi kaynağı) göre ele alınmıştır. Araştırma sonuçlarına göre, gıda sektörünün insan yaşamındaki önemi yalnızca yaşamsal ihtiyaçları karşılayan bir faaliyet olmasından kaynaklanmamaktadır. Aynı zamanda Ezine bölgesindeki istihdamın önemli bir oranı bölgesel işaretli gıda sektöründen karşılanmaktadır. Gıda üretim faaliyetleri, çalışanların sağlığını ve güvenliğini tehdit edici pek çok unsur içermektedir. Bunlar içerisinde özellikle yukarıda da bahsedildiği üzere gıda üretim ekipmanlarının ve teknolojik gelişmeler karşısında karmaşıklaşan yapısı ile kimyasal ürün kullanımında yaşanan artış iş kazaları ve meslek hastalıklarında belirleyici bir yere sahiptir. Bu nedenle sektördeki üreticilerin var olan tehlike hakkında bilgisi olup olmadığı, bilgisi var ise iş sağlığı ve güvenliğine bakış açısının ne olduğu saptanması gerekmektedir. Bakış açısını etkileyen unsurların neler olduğu araştırma sonucu incelenmelidir. İnceleme sonucu iş sağlığı ve güvenliğine bakış açılarının iyileştirilmesi, geliştirilmesi ve uygulanması için çalışmalar yapılmalıdır.

Anahtar kelimeler: Gıda üretim faaliyetleri, coğrafi işaret, Ezine bölgesi, iş sağlığı ve güvenliği, bakış açısı

ABSTRACT

Food activities contain many elements that threaten the health and safety of employees. It has a decisive place in increasing work accidents and occupational diseases due to its complex structure and the increase in the use of chemical products used in the face of increasing technological developments during production. For this reason, it is necessary to determine how the producers of geographic ally indicated foods (cheese, olive and olive oil) in the Ezine region perceive the health and safety risks, their perspectives on this issue and the precautions they take. The food industry is very intertwined with livelihood. For this reason, studies on 'food safety' in businesses draw attention. This shows that in most food businesses, the safety of the product often precedes the safety of the producer for consumer satisfaction.[1] For this reason, it is necessary to conduct research in order to understa nd the food producers with geographical indications, which are important in our region, while producing reliable food, what the producer thinks about safety and whether they have information about the precautions to be taken. Undoubtedly, the most important factor in the realization of production in a size sufficient for the increasing population and, accordingly, in the continuation of living life, is food production activities. However, with the transition from production activities to more complex produc tion techniques caused by technological developments to meet the increasing needs, food has become a production system where there are more risky working environments for the health and safety of employees. The main purpose of this study is to identify the producers in the food sector, which is one of the sectors with the highest health and safety risks in Turkey; To discover the factors that affect their perceptions and attitudes towards their health and safety and to explain the relationship between them and their behavior. In line with this purpose, research questions will be formed about how the knowledge, attitude and perception levels of the participants differ due to the fact that it is an exploratory study. Accordingly, the knowledge, attitude and perception levels of the participants were handled according to demographic variables (Gender, Age, Educational status) and Occupational health and safety knowledge (whether they have knowledge or not and the source of information). According to the results of the research, the importance of the food industry in human life is not only due to the fact that it is an activity that meets vital needs. At the same time, a significant proportion of employment in the Ezine region is met from the regionally marked food sector. Food production activities contain many elements that threaten the health and safety of employees. Among these, especially as mentioned above, the complexity of food production equipment and technological developments and the increase in the use of chemical products have a decisive place in occupational accidents and occupational diseases. For this reason, it is necessary to determine whether the producers in the sector have information about the existing danger, and if they do, what their perspective on occupational health and safety is. The factors affecting the point of view should be examined as a result of the research. As a result of the examination, studies should be carried out to improve, develop and implement the perspectives on occupatio nal health and safety.

Keywords: Food production activities, geographical indication, Ezine region, occupational health and safety, perspective

NANOMEDICINE IN CARDIOVASCULAR DISEASE-APPLICATION FOR DRUG DELIVERY SYSTEM IN CVDs-ANTI-INFLAMMATORY NANOMEDICINE FOR CVDs

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ABSTRACT

Nanotechnology can be used in therapies for atherosclerosis by increasing systemic agent circulation time, lowering off-target cytotoxicity of drugs, improving drug solubility, decreasing the required dosage, and combining diagnostic and therapeutic agents to form theranostics. Nanotechnology can be used in therapies for atherosclerosis by increasing systemic agent circulation time, lowering off-target cytotoxicity of drugs, and improving drug solubility. For cardiac-related disorders, such as atherosclerosis, hypertension, and myocardial infarction, etc.. Cardiovascular diseases (CVDs) are the leading causes of morbidity and mortality worldwide. However, the early and long outcomes vary considerably in patients, especially with the current challenges facing the detection and treatment of CVDs. Nanotechnology offers the opportunity to use nanomaterials in improving health and controlling diseases. Notably, nanotechnologies have recognized potential applicability in managing chronic diseases in the past few years, especially cancer and CVDs. It carries to increase the pharmaco-efficacy and safety of conventional therapies. Different strategies have been proposed to use nanoparticles as drug carriers in CVDs; however, controversies regarding the selection of nanomaterials and nano formulation are slowing their clinical translation. Therefore, this review focuses on nanotechnology for drug delivery and the application of nanomedicine in CVDs. Despite improved clinical management, cardiovascular mortality is predicted to rise in the next decades due to the increasing impact of aging, obesity, and diabetes. Treatment for cardiovascular diseases is limited currently to oral medicines or invasive surgery. This review will explore potential solutions to the limited pharmacological therapies currently on the market and the future that lies ahead for the place of nanotechnology within cardiovascular medicine.

Keywords: cardiovascular disease, controlled release of drugs, nanomedicine, nanotechnology, application of drug delivery system in CVDs

ROMATOİD ARTRİT HASTALIĞINDA EGZERSİZ

EXERCISE IN RHEUMATOID ARTHRITIS

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ÖZET

Romatizma Yunanca"rheuma" kökünden gelir.Herhangi bir vücut sıvısının akışını ifade eder.Etyolojisi tam olarak bilinmemektedir.Travma,iklim,diyet,stre,metobolik ve endokrin faktörler sebep olabilmektedir.Sadece kas-iskelet sistemi hastalığı değil aynı zamanda otoimmün bir hastalıktır.Eklem içinde antijen antikor oluşmaktadır.Kadınlarda erkeklerden fazla görülmektedir..100'den fazla çeşidi vardır.Romatoid artrit.Osteoartrit,Ankilozan Spondilit,Sistemik Lupus Eritematozus ,Fibromiyalji,Gut Hastalığı,Juvenil,RomatoidArtrit,Dermatomiyozit,FibromiyaljiSeronegatifSpondiloartropatiler,bunlard anençokbilinenlerdir.Romatizmal hastalıklarda en çok görülen tip Romatoid Artrittir (RA).RA, ana belirti ve bulguları eklemlerde görülen ancak vücudun diğer bölgelerini de tutan,kronik, ilerleyici,iltihabi bir kollejen doku hastalığıdır.RA genellikle otoimmün bir hastalık olarak tanımlanır ve simetrik poliartiküler ağrı ve şişme,sabah sertliği,halsizlik ve yorgunlukla karakterizedir.Hastalarda eklem ağrısı,özellikle sabah görülen eklem sertliği ve fonksiyon kaybı belli başlı yakınmalardır.Başlangıçta ağrı sadece hareket esnasında olmaktadır,,hastalığın ilerlemesi ile istirahatte de ağrı olmaktadır..Eklemlerde ısı artışı,kızaıklık,şişlik,kas zaıflığı,limitasyon,kas atrofisi,hareketlerde beceriksizlik ve çeşitli deformitelere doğru gidiş görülmektedir..Tüm bu semptomlar hastalığın kronik yapısının sebep olduğu ağrı-anksiyete-depresyon kısır döngüsü sebebiyle psikolojik ve emosyonel olarak da hastayı olumsuz etkileyebilmektedir,Hastaların yaşam kalitesi düşmektedir.,Sosyal ilişkilerde de problem yaşayabilmektedir,Bu nedenle RA hastalarda ilaç tedavisi kadar egzersiz eğitimi de çok önemlidir .RA hastalara yaklaşımda geçmişteki bilgiler ,hastanın,hastalığın aktif dönemlerinde yani ödem,ağrı,kızarıklık gibi inflamatuar bulguların görüldüğü süreçte,hareketsiz bırakılıp,mutlak dinlenmesi yönünde olmuştur.Zaman içerisinde ,bu alanda yapılan bilimsel çalışmaların egzersizin olumlu etkilerini ortaya koymasıyla akut durumda da egzersizler hastanın ağrı sınırları içerisinde rahatlıkla uygulanmaya başlamıştır.Bu bağlamda bu çalışmanın amacı farklı egzersiz türlerinin RA hastalarındaki etkilerini ortaya koymaktır.Günümüzde süreç, egzersizin hem kalp-dolaşım sistemine hem de kas-iskelet sistemi üzerine etkilerini bir arada yürüten proğramlar şeklinde yürütülmektedir.Bu araştırma literatür taraması ve içerik analizi kullanarak yapılan derleme türü bir çalışmadır.Çalışmaya ait literatür veriler,konuya ışık tutabilecek akademik yayınlardan elde edilmiştir.Bu doğrultuda Pubmed,Web of sience,Google Schooler veritabanlarında"rheumatoidarthritis","exercise" pain","inflammation"anahtar kelimeleri ile tarama yapılarak yayınlanan araştırmalar çalışmanın amacına uygun şekilde incelenmiş ve derlenmiştir.yapılan çalışmalar RA'li hastaların tedavi proğramında egzersizin önemli olduğunu göstermektedir.Kanıtlar egzersizlerin hem kalp- dolaşım sistemini destekleyen aerobik karakterli olması hem de kassal dayanıklılık,kuvvet ve esnekliği arttıran bir yapıya sahip olması yönündedir.

Anahtar kelimeler: Romatoid Artrit, egzersiz, kronik ağrı, inflamasyon

ABSTRACT

Rheumatism comes from the Greek root "rheuma".It refers to the flow of any body fluid.The etiology is not fully known.Trauma, climate, diet, stre, metabolic and endocrine factors can be the cause.It is not only a musculoskeletal disease but also an autoimmune disease.Antigen antibody is formed in the joint.It is more common in women than men.There are more than 100 types. Rheumatoid arthritis, Osteoarthritis, Ankylosing Spondylitis, Systemic Lupus Erythematosus, Fibromyalgia, Gout, Juvenile Rheumatoid Arthritis, Dermatomyositis, Seronegative Spondyloarthropathies are the most well-known ones. The most common type of rheumatic diseases is Rheumatoid Arthritis (RA).RA is a chronic, progressive, inflammatory collagen tissue disease whose main signs and symptoms are seen in the joints but also involve other parts of the body. RA is generally defined as an autoimmune disease and is characterized by symmetrical polyarticular pain and swelling, morning stiffness, weakness and fatigue. Joint pain, especially morning joint stiffness and loss of function are the main complaints of patients. There is an increase in temperature, redness, swelling, muscle weakness, limitation, muscle atrophy, awkwardness in movements and progression towards various deformities...All these symptoms can negatively affect the patient psychologically and emotionally due to the vicious cycle of pain-anxiety-depression caused by the chronic nature of the disease, For this reason, exercise training is as important as drug treatment in RA patients.The past information in the approach to RA patients has been that the patient should be immobilized and rested during the active periods of the disease, that is, in the process of inflammatory findings such as edema, pain, redness.Over time, scientific studies in this field have revealed the positive effects of exercise, and exercises have started to be easily applied within the pain limits of the patient in acute condition.In this context, the aim of this study is to reveal the effects of different types of exercises in RA patients. Today, the process is carried out in the form of programs that combine the effects of exercise on both the cardiovascular system and the musculoskeletal system.This research is a review type study using literature review and content analysis.The literature data of the study were obtained from academic publications that could shed light on the subject. In this direction, Pubmed, Web of sience, Google Schooler databases were searched with the keywords "rheumatoid arthritis", "exercise", "chronic pain", "inflammation" and the published studies were examined and compiled in accordance with the purpose of the study.The studies show that exercise is important in the treatment program of patients with RA.Evidence

Keywords: Rheumatoid arthritis,exercise,chronic pain,inflammation

MİKROBİYOTA VE OBEZİTE

MICROBIOTA and OBESITY

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ÖZET

Son birkaç yıldır aşırı kilolu ve obezite insidansı hem çocuklarda hem de yetişkinlerde epidemik oranlara ulaşmıştır. Dünya Sağlık Örgütü'ne göre, 1980 yılından beri dünya çapındaki obezite iki katına çıkmıştır. Obezite, kendisini çevresel faktörlerden etkilenen polijenik bir durum olarak ortaya koyan karmaşık bir hastalıktır.

Mikrobiyota terimi vücut alanımızı paylaştığımız kommensal, simbiyotik ve patojenik olabilen bu mikroorganizmalar topluluğunu ve yaşadığı çevreyle olan etkileşimini ifade etmektedir Dünya üzerinde yaklaşık 10^{30} mikrobiyal hücre olduğu tahmin edilmekte ve yalnızca bir insan vücudunda 10^{14} (100 trilyon) mikroorganizma bulunduğu bilinmektedir. Bu mikroorganizma toplulukları içerisinde bakteriler, virüsler, funguslar ve birçok mikro-ökaryot bulunmaktadır.

Obezitenin patogenezinde rol oynayan mikrobiyotaya ilişkin ilk ipucu Backhed ve arkadaşlarının çalışmalarına dayanmaktadır. Mikroplara karşı serbest bırakılmış farelerde ve konvansiyonel olarak yetiştirilen farelerde vücut ağırlığı artışını karşılaştırdılar ve artmış yağ dokusu ve vücut yağ yüzdesi ile daha fazla kilo aldığını buldular

Birçok araştırmada azalmış Bifidobacterium sayısı ile obezite arasında ilişki bulunmuştur. Anne sütü alan yenidoğanların intestinal mikrobiyatasında formül mama ile beslenen yenidoğanlara göre daha fazla sayıda Bifidobacterium olduğu tespit edilmiştir. İnsanlar üzerinde yapılan birçok araştırmada obezite ile bakteriyel tür arasındaki ilişki çalışılmıştır. Çocuklar ve gebelerde kilo fazlası ile Staphylococcus aureus arasında ilişki olduğu gösterilmiştir. Normal kilolu ile aşırı kilolu gebeler karşılaştırıldığında, Bacteroidetes'in sayıca azaldığı Staphylococcus, Enterobacteriaceae ve Escherichia coli 'nin arttığı gözlenmiştir

Son yıllarda yapılan çalışmalar, bağırsak mikrobiyotasının; enerji homeostazı, yağ dokusu ve obezitenin gelişimi ve obezite ile ilişkili inflamasyon ve insülin direnci bozukluklarında önemli bir role sahip olduğunu göstermektedir. Mikrobiyota kompozisyonunu, antibiyotikler, probiyotikler, prebiyotikler veya hatta dışkı nakli ile eski haline getirmek, obezitenin tedavisi için yeni çözümlerin geliştirilmesi adına umut verici bir strateji olarak görülmektedir. Bu derlemede mikrobiyotanın; konağın sindirim davranışları, enerji depolaması, enerji harcamaları ve yağ depolaması da dahil olmak üzere obezite gelişimini ve korunumunu etkileyen konak işlevlerine katılmalarını sağlayan moleküller ve hücre biyolojik mekanizmaları tartışılmıştır.

Anahtar kelimeler: Obezite, mikrobiyota, probiyotik

ABSTRACT

Over the past few years the incidence of overweight and obesity has reached epidemic proportions in both children and adults. According to WHO, worldwide obesity has more than doubled since 1980. Obesity is a complex disease that manifests itself as a polygenic condition that is affected by environmental factors.

The term microbiota refers to this community of microorganisms that we share our body area with, which can be commensal, symbiotic and pathogenic, and their interaction with the environment in which they live. It is estimated that there are approximately 1030 microbial cells in the world and it is known that there are 1014 (100 trillion) microorganisms in only one human body. These micro-organism communities include bacteria, viruses, fungi and many micro-eukaryotes. The first clue to the microbiota involved in the pathogenesis of obesity is based on the work of Backhed et al. They compared body weight gain in germ-free mice and conventionally bred mice and found that they gained more weight with increased adipose tissue and body fat percentage. Many studies have found a relationship between reduced Bifidobacterium count and obesity. It has been determined that there is a higher number of Bifidobacterium in the intestinal microbiota of breastfed newborns compared to formula-fed newborns. Many studies on humans have studied the relationship between obesity and bacterial species. It has been shown that there is a relationship between overweight and Staphylococcus aureus in children and pregnant women. When normal weight and overweight pregnant women were compared, it was observed that Bacteroidetes decreased in number, Staphylococcus, Enterobacteriaceae and Escherichia coli increased.

Recent studies indicate that the gut microbiota have a key role in the disorders of energy homeostasis, development of adipose tissue and obesity, and obesity-associated inflammation and insulin resistance. Restore the microbiota composition with antibiotics, probiotics, prebiotics, or even fecal transplants, is considered as a promising strategy for the development of new solutions for the treatment of obesity. In this review moleculars and cell biological mechanisms by which the microbiota participate in host functions that impact the development and maintenance of the obese state, including host ingestive behavior, energy harvest, energy expenditure and fat storage are discussed.

Keywords: Obesity, microbiota, probiotic

COMPARISON OF BIOCHEMICAL, MICROBIOLOGICAL, AND TOXICOLOGICAL PROPERTIES OF WILD AND CULTIVATED SOUR CHERRY GENOTYPES

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ABSTRACT

Sour cherry (*Prunus cerasus* L.) is a fruit that is consumed and used by people for different purposes such as fresh fruit, tea, marmalade, jam, etc. In this study, two sour cherry genotypes such as SC genotype which is a small-fruited wild sour cherry and LC genotype which is a large-fruited cultivated sour cherry were used. Total phenolic, flavonoid, and ascorbic acid contents, antioxidant activity (DPPH, ABTS, FRAP), phenolic, sorbic, benzoic acids and sugar contents, and antibacterial activities (agar well diffusion, minimum inhibition concentration, minimum bactericidal concentration, and maximum tolerable concentration) were studied for both genotypes. Additionally, *Salmonella typhimurium* revision tests with S9 mix were studied against *Salmonella typhimurium* TA 98 and TA 100 strains. According to the results, it was determined that the SC genotype had higher values for total phenolic, total flavonoid, and ascorbic acid contents compared to the LC genotype. The dominant phenolic acids in both sour cherry genotypes were succinic acid and rutin trihydrate among the phenolic acid contents. While benzoic acid, sorbic acid, and sucrose could not be detected in both genotypes; glucose and fructose contents were higher in the LC genotype. The antioxidant activity was found to be higher in the SC genotype than the LC genotype. *Bacillus spizizenii* ATCC 6633 was the most sensitive bacteria to both sour cherry extracts, and a weaker antibacterial activity was observed in the other test bacteria. In addition, no mutagenic and antimutagenic activities were found in either sour cherry genotypes. Consequently, because of its contents and biological activities, sour cherry has the potential to play a supportive role in human health.

Keywords: Phenolic acid, MIC, MBC, mutagen, antimutagen, antioxidant, sour cherry

ОПРЕДЕЛЕНИЕ ТОКСИКОЛОГИЧЕСКИХ СВОЙСТВ ПОКРЫТИЙ МЕТОДОМ ТЕРМОДЕСТРУКЦИИ

DETERMINATION OF THE TOXICOLOGICAL PROPERTIES OF COATINGS BY THE THERMAL DESTRUCTION METHOD

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АННОТАЦИЯ

Предлагается авторами способ определения токсичности антипирена полученных на основе коллоидно-эмульсионных соединений, как добавки для водно-дисперсных красок применяемые в жилых помещений, методом термодеструкции строительных материалов. Токсичность определяется методом, основанного на изучение летучести, дымообразование при горение и термоокисление строительных материалов с использованием дифференциально-термогравиметрическим анализом.

Существует ряд методов определения контроля токсичности проб природных, питьевых, хозяйственно-питьевых, хозяйственно-бытовых сточных, очищенных сточных, сточных, талых, технологических вод экспресс-методом с применением прибора серии «биотестер», но малоизвестен до сегоднящней день определение токсичности коллоидно-эмульсионных систем на основе водно-дисперсионных красок внутренного применения для жилых помещений, особенно антипиренов, также не существует определенный ГОСТ определения токсичности водно-дисперсионных систем. В зависисмости от состава товара существует целый арсенал различных методов организации различных товаров примененяемые в повседневной жизни и определяющие безопасности для здоровья человека.

Предлагаемый нами способ определения токсичности устанавливает методику определения токсичности коллоидно-эмульсионных антипиренов АП-1, АП-2, АП-3, АП-4, АП-5, АП-6, АП-7 для водно-дисперсионных красок внутреннего применения при разложении по летучести и термодеструкции токсичных веществ присутствующих в составе антипиренов с использованием приборов ДТА и ДСК.

Метод определения токсичности коллоидно-эмульсионных систем на основе водно-дисперсионных красок основан на способности тест-объектов реакциями окисления улетучиванием токсичных веществ представляющих опасность для здоровья человека при дыхании в комнате крашенными огнестойкими водно-дисперсионными красками, направленно улетучиванию и дымообразованию этих веществ (окислительная реакция), избегая их вредного воздействия.

На основе проведённых исследований разработаны эффективные составы, повышающие огнестойкость и пожарную безопасность зданий и сооружений путем модификации водно–дисперсионных красок, используемых в виде покрытия для строительных и обшивочных материалов. Научно доказано, что данный способ определения токсичности даст возможность найти пути научных решений по сокращению проблем в сфере обеспечения пожарной безопасности и здоровья человека.

Ключевые слова: антипирен, токсичность, термодеструкция, горючесть.

ABSTRACT

The authors propose a method for determining the toxicity of flame retardants obtained on the basis of colloid-emulsion compounds, as additives for water-dispersed paints used in residential premises, by the method of thermal destruction of building materials. Toxicity is determined by a method based on the study of volatility, smoke formation during combustion and thermal oxidation of building materials using differential thermogravimetric analysis.

There are a number of methods for determining the control of toxicity of samples of natural, drinking, household and drinking, domestic sewage, treated waste, sewage, melted water, process water using an express method using a device of the "biotester" series, but the determination of the toxicity of colloid-emulsion systems based on water-dispersion paints for indoor use for residential premises, especially flame retardants, there is also no specific GOST definition for the toxicity of water-dispersion systems. Depending on the composition of the goods, there is a whole arsenal of different methods for organizing various goods used in everyday life and determining safety for human health.

The proposed method for determining toxicity establishes a method for determining the toxicity of colloid-emulsion flame retardants AP-1, AP-2, AP-3, AP-4, AP-5, AP-6, AP-7 for water-dispersion paints for internal use when decomposed by volatility and thermal destruction of toxic substances present in the composition of flame retardants using DTA and DSC devices.

The method for determining the toxicity of colloid-emulsion systems based on water-dispersion paints is based on the ability of test objects to volatilize toxic substances that are hazardous to human health when breathing in a room with dyed fire-resistant water-dispersion paints, directed volatilization and smoke formation of these substances (oxidative reaction) avoiding their harmful effects.

On the basis of the conducted research, effective compositions that increase the fire resistance and fire safety of buildings and structures by modifying water-dispersion paints used as a coating for building and cladding materials. It has been scientifically proven that this method of determining toxicity will make it possible to find ways of scientific solutions to reduce problems in the field of providing fire safety and human health.

Keywords: flame retardant, toxicity, thermal degradation, flammability.

KRONİK HASTALIĞI OLAN ERİŞKİNLERDE BAKIM BAĞIMLILIĞI

CARE DEPENDENCY IN ADULTS WITH CHRONIC DISEASES

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ÖZET

Amaç: Bu çalışma, kronik hastalığa sahip bireylerin bakım bağımlılığı düzeyinin belirlenmesi amacıyla yapıldı.

Materyal Metod: Araştırma iki farklı hastanede, tanımlayıcı bir tasarımda yürütüldü. Araştırmanın verileri Temmuz ile Eylül 2022 tarihleri arasında, yüz yüze görüşme tekniği kullanılarak toplandı. Verilerin toplanmasında "Katılımcı Bilgi Formu" ve "Bakım Bağımlılığı Ölçeği" kullanıldı. Araştırma 127 katılımcı ile tamamlandı. Verilerin analizinde tanımlayıcı istatistikler, Tek Yönlü Varyans analizi (Anova), Bağımsız Örneklem T Testi, Pearson Korelasyon analizi kullanıldı.

Bulgular: Çalışmaya katılanların yaş ortalamasının 59,74±14,75 olduğu ve çoğunluğunun kadın (%56,7), ilkokul mezunu (%58,3), evli (%79,5) olduğu saptandı. Hastaneye çoğunlukla planlı geldikleri (%64,6) ve tıbbi tedavi (%89,0) nedeni ile hastaneye yatışlarının olduğu bulundu. Katılımcılarda en sık görülen kardiyovasküler hastalıklardı (%65,4). Katılımcıların toplam bakım bağımlılığı puan ortalaması 69.55±15.26'dı. Bakım bağımlılığı puan ortalamaları çalışan (p=0,00), çocuğu olmayan (p=0,04), hastaneye planlı (p=0,00) ve tetkik (p=0,04) amaçlı ile gelen, kanser olmayan (p=0,00), nörolojik hastalığı bulunmayan (p=0,01) katılımcılarda daha yüksekti. Cinsiyet, eğitim durumu, medeni durum, ekonomik durum, birlikte yaşadığı kişi, bulunduğu servis ve bazı kronik hastalıklara göre bağım bağımlılığı düzeyi farklılık göstermedi (p>0,05). Bakım bağımlılık düzeyi ile yaş (r=- 0,30, p<0,01) ve toplam kronik hastalık sayısı (r= -0,34, p<0,01) arasında negatif yönde zayıf düzeyde ilişki görüldü.

Sonuç: Kronik hastalığı olan bireylerde bakım bağımlılığı düşüktü. İleri yaş ve kronik hastalık sayının fazla olması bakım bağımlılığını arttırabilir. Hemşirelerin kanser ve nörolojik hastalığı olan bireylerde bakım bağımlılığı düzeyini değerlendirerek bakımı planlamaları önerilmektedir.

Anahtar kelimeler: Bakım bağımlılığı, kronik hastalık, hemşire, bakım

ABSTRACT

Aim: This study was conducted with the aim of determining the level of care dependency of individuals with chronic diseases.

Material and Method: The research was planned as a descriptive study and was conducted at two different hospitals. Data collection was performed by face-to-face interview between July and September 2022, using a Participants' Information Form and the Care Dependency Scale. The research was completed with 127 participants. In the data analysis, descriptive statistics, One-Way Variance Analysis (ANOVA), Independent Samples T test and Pearson Correlation Analysis were used.

Findings: The mean age of the participants was 59.74±14.75 years; a majority were female (56.7%), had primary school education (58.3%), and were married (79.5%). It was found that (64.6%) had

planned to come to the hospital, and that (89.0%) had been admitted to hospital for medical treatment. Most frequently seen in the participants were cardiovascular diseases (65.4%). The total care dependency score mean of the participants was 69.55±15.26. Care dependency score means were higher in participants who were working (p=0.00), those without children (p=0.04), those who came to the hospital in a planned way (p=0.00) or for examination (p=0.04), and those who did not have cancer (p=0.00) or a neurological illness (p=0.01). The level of care dependency did not differ according to gender, education level, marital status, economic status, the person lived with, the department of the hospital, or the chronic illness (p>0.05). A weak negative correlation was seen between care dependency level and age (r =- 0.30, p<0.01) and the total number of chronic diseases (r =-0.34, p<0.01).

Conclusion: Care dependency was low in individuals with chronic diseases. Advanced age and a large number of chronic diseases may increase care dependency. It is recommended that nurses should assess the level of care dependency of individuals with cancer or neurological diseases when planning their care.

Keywords: Care dependency, chronic disease, nurse, care

PROKSİMAL HUMERUS KIRIKLARIN PHILOS PLAĞI İLE TEDAVİSİNDE UZUN DÖNEM SONUÇLARIMIZ

OUR LONG-TERM RESULTS IN THE TREATMENT OF PROXIMAL HUMERAL FRACTURES WİTH THE PHILOS PLATE

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ÖZET

Proksimal humerus kırıkları daha çok osteoporoza bağlı düşük enerjili travmalar sonrasında ileri yaşlarda ortaya çıkar. Genç erişkinlerde daha az görülmekle birlikte yüksek enerjili travmalar sonucu ortaya çıkar. Proksimal humerus kırıkları, humerus kırıklarının %45'ini oluşturur. Tedavi yöntemi hastanın yaşı, kırığın tipi ve eşlik eden diğer hastalıkların varlığına göre belirlenir. Sınıflandırma Neer sistemi kullanılarak yapılır. Yer değiştirmiş proksimal humerus kırıklarının cerrahi tedavisinde birçok yöntem vardır. PHILOS plağı minimal invaziv yöntemle uygulanabilen ve erken harekete izin verecek bir tespit aracıdır. Çalışmamızda PHILOS plağı ile tedavi edilen proksimal humerus kırıklarının uzun dönem sonuçları değerlendirildi.

Çalışmaya 83 hasta dahil edildi. Hasta dosyaları, PACS sistemindeki X-RAY X-ışınları ve ayaktan epikriz kullanıldı. Fonksiyonel sonuçlar son muayenede Constant omuz skoruna göre değerlendirildi.

Ortalama takip süresi 40 aydı. Hastaların yaş ortalaması 48.7 idi. Hastaların son kontrollerinde yapılan değerlendirme sonucunda Constant-Murley'in toplam puanı 100 üzerinden 69,6 idi. 5 hastada komplikasyon görüldü. Komplikasyon gelişen hastaların Constant-Murley skoru daha düşük olmasına rağmen istatistiksel olarak anlamlı değildi.

Proksimal humerus kırıklarının Philos plağı ile tespiti ameliyat sonrası erken dönemde omuz hareketlerine izin vermesi, yüksek kaynama ve düşük komplikasyon oranları ile tercih edilebilecek bir tedavi yöntemidir.

Anahtar kelimeler: Proksimal Humerus, Philos plak, minimal invaziv

ABSTRACT

Proximal humerus fractures occur more in advanced ages after low-energy traumas related to osteoporosis. Although it is less common in young adults, it occurs as a result of high-energy trauma. Proximal humeral fractures account for 45% of humeral fractures. The method of treatment is determined according to the age of the patient, the type of fracture and the presence of other accompanying diseases. Classification is done using the Neer system. There are many methods for the surgical treatment of displaced proximal humeral fractures. The PHILOS plate is a minimally invasive fixation tool that will allow early movement. In our study, long-term outcomes of proximal humeral fractures treated with PHILOS plate were evaluated.

83 patients were included in the study. Patient files, X-RAY X-rays in the PACS system and ambulatory epicrisis were used. Functional results were evaluated according to the Constant shoulder score at the last examination.

The mean follow-up was 40 months. The mean age of the patients was 48.7. Constant-Murley's total score was 69.6 out of 100 as a result of the evaluation made at the last follow-up of the patients. Complications were seen in 5 patients. Although the Constant-Murley score of patients with complications was lower, it was not statistically significant.

Fixation of proximal humerus fractures with Philos plate is a treatment method that can be preferred because it allows shoulder movements in the early postoperative period, high union and low complication rates.

Keywords: Proximal Humerus, Philos plate, minimally invasive

SARS-COV-2 AND ANTIDEPRESSANTS: WAS IT ALL STRESS?

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ABSTRACT

Objectives: COVID-19 affected our lives in both a physical and a mental state of well-being, leaving long-lasting scars that time might heal. Stress, anxiety, and depression are associated with particular neurotransmitters that most antidepressants relieve by influencing these chemical messengers, which aid in communication between brain cells, and each antidepressant acts on these neurotransmitters in slightly different ways, making them a popular treatment choice. Methods: We describe in this prospective longitudinal observational study ten COVID-19-positive cases with severe disease symptoms and post-infection mental scars, who were prescribed fluoxetine and paroxetine. Results: These treated cases experienced a progressive reduction of illness severity and anxiety upheaval surrounding this pandemic, which may involve the negative action of stress on COVID-19 patients and the positive action of antidepressants against the viral disease. Conclusion: Effective treatments of COVID-19-especially those that are easy to use, show good tolerability, and have widespread availability at low cost, with their less bothersome effects and non-addictive properties should be widely studied.

Keywords: SARS-CoV-2, COVID-19, Antidepressants, Fluoxetine, Paroxetine.

EUROPE IN THE FACE OF COVID-19

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ABSTRACT

Objectives: The coronavirus disease called COVID-19 responsible for the current health crisis is an infectious disease caused by the SARS-CoV-2 virus, a respiratory virus that spreads through droplets of saliva or nasal secretions emitted by a person infected. The COVID-19 pandemic has struck all individuals and all ages, spreading to all continents including Europe After Asia was the initial focus. Methods: For this study, we compare the evolution of Covid in Europe compared to other continents, its chronology as well as the categorization of countries according to the total number of cases and mortality rate, while analyzing the different factors influencing these two parameters. Results: We have been able to distinguish in Europe 4 groups of different countries, a group of countries ravaged with the virus, another group which has been able to limit the circulation of the virus, a group with many cases but a lower mortality rate and the last group are countries that have both limited the circulation of the virus while having a low mortality rate. Conclusion: The pandemic is yet to be over and international data is always important for understanding further control strategies against a severe health crisis.

Keywords: COVID-19, SARS-CoV-2, Investigation, Evolution, Cases, Mortality, Europe.

BEBEKLERDE OKULOMOTOR SİSTEM VE OTURMA BECERİSİNİN GELİŞİMİ

OCULOMOTOR SYSTEM AND DEVELOPMENT OF SITTING SKILLS IN BABIES

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ÖZET

Amaç: Postural kontrol motor gelişimin önemli bir parametresidir. Oküler sistem de postural kontrole katkıda bulunur. Bu çalışmanın amacı bebeklerde okulomotor gelişim ve postural basamak olan oturma becerisi ilişkisini incelemektir.

Yöntem: Çalışmaya düzeltilmiş yaşı dört ay olan 43 bebek katıldı. Bebeklere oturma gelişiminin değerlendirilmesinde Alberta Infant Motor Skalası (AIMS) oturma alt ölçeği, okulomotor sistemin değerlendirilmesinde Bebeklerde Duyusal Fonksiyonlar Testinin (BDFT) okulomotor kontrol altölçeği uygulandı. Bebekler term 23 (53,49%) preterm 20 (46,51%) olarak ayrıldı. Değişkenler arasındaki ilişkiler Spearman Korelasyon Analizi ile incelendi.

Bulgular: Sonuçta AlMS oturma altölçeği puanları ile TSFI okulomotor kontrol altölçeği puanları arasında orta derece pozitif yönlü anlamlı ilişki olduğu görüldü. (r=0,445, p=0,003). Term/preterm bebeklerin ayrı analizinde preterm dönemde doğan bebeklerde AlMS oturma altölçeği puanları ile TSFI okular motor altölçeği puanları arasında orta derece pozitif yönlü anlamlı ilişki olduğu (r=0,686, p<0,001), termlerde bu parametreler açısından bir ilişki olmadığı görüldü.

Sonuç: Preterm bebeklerde dördüncü aydaki okulomotor gelişim ile oturmanın ilişkilidir. Motor-duyusal gelişimin birbirini desteklediği düşünüldüğünde özellikle preterm doğanlarda temel motor beceriler ve okulomotor çalışılmaların bir arada sürdürülmesi önemlidir.

Anahtar kelimeler: gelişim, motor, duyu, bebek, preterm

ABSTRACT

Objective: Postural control is an important parameter of motor development. The ocular system also contributes to postural control. The aim of this study is to examine the relationship between oculomotor development and sitting ability, which is a postural step, in infants.

Methods: Forty-three infants with a corrected age of four months participated in the study. The Alberta Infant Motor Scale (AIMS) sitting subscale was used to evaluate sitting development in infants, and the Infant Sensory Functions Test (TSFI) oculomotor control subscale was used to evaluate the oculomotor system. Babies were classified as term 23 (53.49%) and preterm 20 (46.51%). Relationships between variables were analyzed by Spearman Correlation Analysis.

Results: As a result, it was seen that there was a moderately positive and significant relationship between the AMS sitting subscale scores and the TSFI oculomotor control subscale scores. (r=0.445, p=0.003). In the separate analysis of term/preterm infants, it was seen that there was a moderately positive and significant correlation between the AlMS sitting subscale scores and the TSFI ocular motor subscale

scores in the preterm infants (r=0.686, p<0.001), and there was no correlation in terms of these parameters in term infants.

Fourth month oculomotor development is associated with sitting in preterm infants. Considering that motor-sensory development supports each other, it is important to maintain basic motor skills and oculomotor practices together, especially in preterm babies.

Keywords: development, motor, sense, infant, preterm

SKOLİOZ-ONURĞA XƏSTƏLİKLƏRİNİN FİZİOTERAPİYADA MÜALİCƏ ASPEKTLƏRİ

SKOLIOSO-OMURGAR HASTALIKLARININ FİZYOTERAPİDE TEDAVİSİNİN YÖNLERİ

ASPECTS OF TREATMENT OF SCOLIOSO-SPINE DISEASES IN PHYSIOTHERAPY

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ÖZET

Bildiğimiz gibi Fizyoterapi, fiziksel faktörlerin kullanıldığı bir tedavi ve korunma önlemidir. Fizyoterapi, doğal faktörlerle tedavi anlamına gelir. Günümüzde fizyoterapi, hastalıkların tedavisi, rehabilitasyonu ve önlenmesinde doğal ve yapay olarak oluşturulmuş terapötik faktörlerin uygulanması sırasında insan vücudunda meydana gelen değişiklikleri inceleyen bir bilim alanı olarak kabul edilmektedir.

"Fizyoterapide Skolyoz-Omurga Hastalıklarının Tedavisinin Yönleri" adlı bilimsel makalede sunulan birçok hastalıkta olduğu gibi skolyoz da fizyoterapi ile tedavi edilmektedir. Makale, erken çocuk luktan başlayarak ve yaşla birlikte artan hastalıkların ilerlemesinden bahsediyor. Burada hastalık zamanında tespit edilirse hafif fizyoterapötik tedavi ve terapötik spor hareketlerinin hastalığın artışını engellediği ve hastanın kısa sürede olumlu sonuç almasına yardımcı olduğu vurgulanmaktadır.

Verilen yazıda derecelere bağlı olduğu için skolyoz-omurga hastalığının tedavisi ele alınmıştır. Fizyoterapi tedavisi ve terapötik egzersiz, omurga ve kaslara binen yükün doğru bir şekilde dağıtılmasına yardımcı olur.

Fizyoterapi reçete ederken, hastanın yaşı, cinsiyeti, yapısı, komorbiditelerin varlığı, vücudun adaptasyon-telafi edici mekanizmalarının egzersiz derecesi, vücudun ana fonksiyonlarının biyoritmik aktivitesi vb. değerlendirilebilir. Fizyoterapinin temel amacı Bölümün temel amacı, hastanın patolojisine bağlı olarak fiziksel sağlığına kavuşmasını ve normal bir yaşam sürmesini sağlamaktır.

Anahtar kelimeler: Fizyoterapi, skolyoz-omurga, fiziksel faktor, derece, hasta, tedavi

ABSTRACT

As you know, physical therapy is a therapeutic and preventive measure using physical factors. Physiotherapy is a treatment with natural factors. Currently, physiotherapy is considered as a field of science that studies the changes that occur in the human body when natural and artificially created therapeutic factors are used in the treatment of diseases, rehabilitation and prevention.

In the presented scientific article "Aspects of the treatment of diseases of the scoliosis-spine in physiotherapy", along with many other diseases, scoliosis is also treated with physiotherapeutic methods. The article talks about the progression of diseases, starting from early childhood and increasing with age. It is emphasized here that with the timely detection of the disease, light physiotherapeutic procedures and therapeutic and sports movements prevent the growth of the disease and help the patient to get a positive result in a short time.

This article discusses the treatment of scoliosis of the spine, as it depends on the degree. Physiotherapy exercises and physiotherapy exercises help to properly distribute the load on the spine and muscles.

When prescribing physiotherapy exercises, the age, gender, constitution of the patient, the presence of concomitant diseases, the degree of load of the adaptive-compensatory mechanisms of the body, the biorhythmic activity of the main functions of the body, etc. should be considered. The main goal and

main task of the physiotherapy department is to restore the physical health of the patient and lead a normal life based on his pathology.

Keywords: Physiotherapy, scoliosis-spine, physical factor, grade, patient, treatment

SURVEY OF VACCINATION RATES AGAINST COVID-19 AT THE UNIVERSITY OF TLEMCEN

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ABSTRACT

Objectives: The novel human coronavirus SARS-CoV-2 causing COVID-19 with symptoms ranging from the common cold to pneumonia, has been responsible for the current health crisis, it has spread rapidly at record speed leaving many deaths of different ages and different ethnicities, and in order to stop this propagation, scientists rushed to create several efficient vaccines against this virus, and despite being marketed in all countries of the world, opinions diverged between supporters and opponents. Methods: This prompted us to carry out this survey on vaccination against COVID-19 at the University of Tlemcen, through a questionnaire intended for teachers and students shared via email and social media networks, where data was collected over a period of 2 Months, with the aim of exploring the perceptions and opinions of participants on the vaccination and vaccines in general in our college. Results: The majority of respondents for this study belonged to young people of the female gender, despite the latter, men were the most vaccinated, fortunately, most of them also acknowledge the association between prevention and vaccination. Conclusion: So, is accepting vaccines and getting everyone vaccinated for this virus would indicate that the pandemic will be over? or would it indicate the rise of new mutations?

Keywords: COVID-19, SARS-CoV-2, Investigation, Vaccination, University of Tlemcen

PANİK BOZULUĞU HASTALARINDA OBSESİF İNANIŞLAR ve ÜST BİLİŞLERİN İNCELENMESİ*

THE INVESTIGATION OF OBSESSIVE BELIEFS AND METACOGNITIVE BELIEFS IN PANIC DISORDER PATIENTS

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ÖZET

Bu çalışmanın amacı panik bozukluğu olan ve olmayan kişilerin üst bilişlerini ve obsesif inanışlarını karşılaştırmak ve panik bozukluğu hastalarında üst bilişler ve obsesif inanışlar arasındaki ilişkileri incelemektir. Araştırma, panik bozukluğu tanısı almış 42 kişi ve herhangi bir psikiyatrik hastalığı olmayan 45 kişi ile gerçekleştirilmiştir. Bu araştırmaya katılan 42 kişilik hasta grubu, özel bir psikiyatri muayenehanesinde ayakta tedavi gören ve psikiyatrist tarafından panik bozukluğu tanısı konulmuş kişilerden oluşturulmuştur. Bu kişilerin komorbid bir psikiyatrik tanısının olmaması, araştırma verilerinin doldurulduğu süreçte depresif semptom göstermemesi araştırmaya dâhil edilme koşulu olarak belirlenmiştir. Kontrol grubu, hasta grubu oluşturulduktan sonra hasta grubuna benzer demografik özellikte kişilerden oluşturulmuştur. Her iki gruptaki katılımcılara, üst bilişlerini belirlemek amacıyla Üst Bilişler Ölçeği (ÜBÖ-30) ve obsesif inanışlarını belirlemek amacıyla Obsesif İnanışlar Ölçeği (OİÖ-44) uygulanmıştır. Hasta ve kontrol gruplarının ölçeklerden aldıkları puanları karşılaştırmak amacıyla bağımsız gruplar t-testi analizi gerçekleştirilmiştir. Panik bozukluğu hastalarının OİÖ-44 toplam puanlarının kontrol grubuna göre anlamlı derecede daha yüksek olduğu bulunmuştur ($t(85)= 2.424$; $p<0,05$). Aynı zamanda alt ölçeklerden sorumluluk/tehlike beklentisi alt ölçeğinde ($t(85)= 2.541$; $p<0,05$) panik bozukluğu hastalarının aldıkları puanların kontrol grubuna göre anlamlı derecede daha yüksek olduğu görülmüştür. Düşüncelere verilen önem/düşüncelerin kontrolü ($t(85)=1.928$; $p>0.05$) ve mükemmeliyetçilik/kesinlik alt ölçeğinden alınan puanların ($t(85)=1.967$; $p>0,05$) ise kontrol ve hasta gruplarında farklılaşmadığı görülmüştür. Panik bozukluğu hastalarının ÜBÖ-30 toplam puanı ($t(85)= 3.829$; $p<0,01$) ve bilişsel farkındalık ($t(85)= 3.443$; $p<0,01$), düşünceleri kontrol ihtiyacı ($t(85)= 8.147$; $p<0,01$) ve kontrol edilemezlik ve tehlike ($t(85)= 3.845$; $p<0,01$) alt ölçeklerinden aldığı puanlar, kontrol grubuna göre anlamlı derecede daha yüksek bulunmuştur. Bilişsel güven alt ölçeği ($t(85)= -.115$; $p>0,05$) ve olumlu inanışlar alt ölçeğinden ($t(85)= -1.333$; $p>0,05$) alınan puanlar ise hasta grubu ve kontrol grubunda anlamlı düzeyde farklılaşmamaktadır. Panik bozukluğu hastalarının obsesif inanışları ve üst bilişleri arasındaki ilişkiler incelendiğinde ise panik bozukluğu hastalarının OİÖ-44 ve ÜBÖ-30'dan aldığı toplam puanlar arasında ($r=.80$; $p<0,01$) yüksek düzeyde ve anlamlı bir ilişki bulunmuştur.

Anahtar kelimeler: Panik bozukluğu, obsesif inanışlar, üst bilişler

ABSTRACT

The aim of this study was to compare metacognitions and obsessive beliefs of people with and without panic disorder and to examine the relationships between metacognitions and obsessive beliefs in patients with panic disorder. The study was conducted with 42 people diagnosed with panic disorder and 45 people without any psychiatric illness. The group of 42 patients participating in this study consisted of outpatients in a private psychiatric practice who were diagnosed with panic disorder by a psychiatrist.

It was determined as a condition for inclusion in the study that these people did not have a comorbid psychiatric diagnosis and did not show depressive symptoms during the period when the research data were filled in. After the patient group was formed, the control group was formed from people with similar demographic characteristics to the patient group. The participants in both groups were administered the Metacognitions Questionnaire (MCQ-30) to determine their metacognitions and the Obsessive Beliefs Questionnaire (OBQ-44) to determine their obsessive beliefs. Independent samples t-test analysis was performed to compare the scores of the patient and control groups. It was found that panic disorder patients' OBQ-44 total scores were significantly higher than the control group ($t(85)= 2.424$; $p<0.05$). At the same time, it was observed that the scores of panic disorder patients in the Responsibility and Threat Overestimation subscale ($t(85)= 2.541$; $p<0.05$) were significantly higher than the control group. The Importance of and Control over Thoughts ($t(85)=1.928$; $p>0.05$) and Perfectionism and Intolerance for Uncertainity subscale scores ($t(85)=1.967$; $p>0.05$) did not differ in the control and patient groups. Panic disorder patients' MCQ total scores ($t(85)= 3.829$; $p<0.01$) and Cognitive Self-Consciousness ($t(85)= 3.443$; $p<0.01$), Beliefs About Need to Control Thoughts ($t(85)= 8.147$; $p<0.01$) and Negative Beliefs About Uncontrollability Of Thoughts And Danger ($t(85)= 3.845$; $p<0.01$) subscale scores were significantly higher than the control group. The scores obtained from the Cognitive Confidence subscale ($t(85)= -.115$; $p>0.05$) and Positive Beliefs About Worry subscale ($t(85)= -1.333$; $p>0.05$) did not differ significantly between the patient group and the control group. When the relationships between obsessive beliefs and metacognitions of panic disorder patients were analyzed, a high and significant relationship was found between the total scores of panic disorder patients on the OBQ-44 and MCQ-30 ($r=.80$; $p<0.01$).

Keywords: Panic disorder, obsessive beliefs, metacognitions

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INVESTIGATION OF THE EFFECT OF CINNAMALDEHYDE ON LEPTIN-EXPOSED PC-3 PROSTATE CANCER CELLS VIA PI3K/MAPK SIGNAL TRANSDUCTION PATHWAYS

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ABSTRACT

In this study, we examined the effect of cinnamaldehyde, the main component of cinnamon bark, on cell viability, cell death, cell morphology, and PI3K/MAPK signal transduction pathways in PC-3 prostate cancer cells by inducing obesity in vitro. The etiology of prostate cancer, which is the second leading cause of death in men, is not fully understood. Obesity has been shown to be associated with various types of cancer such as colon, breast and endometrial, including prostate cancer. Leptin is a protein secreted from adipocytes and it controls appetite. In the fasting state, plasma leptin levels decrease. However, it has been observed that obese people have high levels of leptin in their blood, but their appetite is not suppressed. They become insensitive to the leptin signal and leptin resistance develops. Cinnamaldehyde is a phytochemical found in the bark of cinnamon and its anti-inflammatory, antimicrobial and antioxidant effects on human health has been shown. Researches was conducted in order to develop smart drug therapies that target cancer cells in the treatment of many cancers. Targeted therapy protocols that inhibit signaling pathways which activated during cancer development can be developed. The PI3K (phosphatidylinositol-3-kinase) pathway plays a role in cell viability, differentiation and proliferation. The MAPK (mitogen-activated protein kinase) induces the activation of some transcription factors and affects the cell cycle. The PC-3 cell line of human prostate cancer was used in the study. Five study groups were formed as control, leptin, cinnamaldehyde, leptin+cinnamaldehyde and leptin+solvent. Cell morphology analysis with H-E staining, apoptosis analysis with annexin V and PI3K/MAPK signal pathway analysis were performed. In our study, we observed that cinnamaldehyde alters the morphology of the PC-3 prostate cancer cells, induces apoptosis and inhibits PI3K signaling pathways in particular. When administered with leptin, cinnamaldehyde showed the same morphologic and apoptotic effect but lost its effect on inhibition of PI3K signaling pathway.

Keywords: Prostate cancer, Leptin, Cinnamaldehyde, PI3K, MAPK

DOĞUM İNDÜKSİYONUNDA MEKANİK YÖNTEM: SERVİKAL OLGUNLAŞTIRICI BALON

MECHANICAL METHOD OF INDUCTION OF LABOUR: CERVICAL RIPENING BALON

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ÖZET

Doğum uterus kontraksiyonları ile birlikte serviksin efasmanı ve dilatasyonu sonucu fetüsün uterustan dışarı atılma sürecidir. Sürecin başlaması için düzenli uterus kontraksiyonları, servikal efasman ve silinme gerekmektedir. Serviks, doğuma kadar fetüsün uterusta kalmasını sağlamaktan ve doğumda güvenli bir şekilde dünyaya gelmesinden sorumludur. Serviksin olgunlaşmasıyla efasman ve dilatasyonun eş zamanlı meydana gelmesi beklenir. Uygun servikal olgunlaştırıcı yöntemin serviksin doğal olgunlaşma sürecinde gerçekleşen değişiklikleri sağlaması gerekmektedir. Servikal olgunlaştırma yöntemleri mekanik ve kimyasal yöntemler olarak ikiye ayrılmaktadır. Mekanik yöntemler kimyasal yöntemlerle kıyaslandığında daha ucuz maliyete sahip, daha az yan etkiye maruziyet ve daha kolay depolanabilme özelliklerine sahiptir. Bunun yanında anne tarafından rahatsız edici etkiye sahip olma, enfeksiyona maruziyeti arttırma gibi dezavantajları da bulunmaktadır. Mekanik yöntemler arasında bulunan servikal olgunlaştırıcı balonlar, şişirilmesi sonucunda servikse lokal bir bası oluşturulması mekanizması ile çalışır. Serviks üzerinde bası sağlayarak alt uterin segmentte gerilme ve indirekt olarak prostoglandin salgısını arttırma etkisi ile servikal olgunlaşmayı sağlamaktadır. Çalışmalarda servikal olgunlaştırıcı balonların, etkinliği kanıtlanmış prostoglandinler seviyesinde etkili olduğu, sezeryan oranlarının daha düşük olduğu, travaydaki gebelerin ise Bishop skorlarında hızlı gelişmeler sağladığı ve travay sürecini kısalttığı görülmüştür. Bu çalışmada ise servikal olgunlaştırıcı balonların etkinliği ve balonların doğum indüksiyonunda kullanılan diğer yöntemlerle kıyaslandığında oluşan avantaj ve dezavantajlarının belirlenmesi amaçlanmıştır.

Sonuç: Servikal olgunlaştırıcı balonların, etkinliği kanıtlanmış prostoglandinler seviyesinde etkili olduğu, balonların kullanıldığı gebelerde sezaryen oranlarının daha düşük olduğu, travay sürecinde Bishop skorlarında hızlı gelişmeler sağladığı görülmüştür, buna karşılık enfeksiyona maruziyetin artma durumuna ilişkin farklı çalışmalar mevcuttur. Tüm servikal balon versiyonlarının birbirine üstünlüğü ve farmakolojik indüksiyon yöntemleriyle karşılaştırılması konusunda daha fazla çalışmaya ihtiyaç vardır.

Anahtar kelimeler: Servikal olgunlaşma, servikal olgunlaştırıcı balon, doğum indüksiyonu, mekanik yöntemler, prostoglandin

ABSTRACT

Labour is the process of expulsion of the fetus from the uterus as a result of uterine contractions and effacement and dilatation of the cervix. Regular uterine contractions, cervical effacement and dilatation are necessary for the process to begin. The cervix is responsible for ensuring that the fetus remains in the uterus until birth and is safely delivered at birth. As the cervix matures, effacement and dilatation are expected to occur simultaneously. The appropriate cervical ripening method should provide the changes that occur during the natural maturation process of the cervix. Cervical ripening methods are divided into two as mechanical and chemical methods. Mechanical methods have cheaper cost, less exposure to side effects and easier storage compared to chemical methods. However, they also have disadvantages such as having a disturbing effect on the mother and increasing exposure to infection. Cervical ripening balloons, which are among the mechanical methods, work with the mechanism of creating a local pressure on the cervix as a result of inflation. By providing pressure on the cervix, it provides cervical ripening with the effect of stretching in the lower uterine segment and indirectly increasing prostoglandin secretion. Studies have shown that cervical ripening balloons are effective at the level of proven prostoglandins, have lower caesarean section rates, provide rapid improvements in Bishop scores of pregnant women in trauma and shorten the trauma process. In this study, we aimed to determine the efficacy of cervical ripening balloons and the advantages and disadvantages of balloons compared with other methods used in induction of labour.

Conclusion: Cervical ripening balloons have been shown to be effective at the level of proven prostoglandins, lower caesarean section rates in pregnant women using balloons, and rapid improvements in Bishop scores during the trauma process, although there are different studies on the increased exposure to infection. Further studies are needed on the superiority of all cervical balloon versions and their comparison with pharmacological induction methods.

Keywords: Cervical ripening, cervical ripening balloon, induction of labour, mechanical methods, prostoglandin

INVEGESTION OF JNK INHIBITION ON COLON CANCER STEM CELL BEHAVIIOR

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ABSTRACT

Colorectal cancer (CRC) is one of the gastrointestinal neoplasms with the highest morbidity and mortality rates worldwide. Colorectal cancer stem cells (CRCSC) play important roles in tumor development, growth, metastasis and recurrence, as in other cancer stem cells. The JNK signaling pathway has been shown to contribute to the aggressiveness of various cancer types by maintaining cancer stem cell properties such as self-renewal, drug resistance, and tumor initiation. The JNK signaling pathway also plays important roles in the niche of cancer stem cells and their self-renewal. In this study, it was aimed to investigate the transformation/differentiation of colorectal cancer stem cell to colorectal cancer cells, colon cells and/or other cellular structures through JNK inhibition, by examing the TGF-B, ERK1/2 and CyclinD2 markers. HT-29 CSCs (CD24+/CD44+), HT-29 cells, and JNK inhibitor-treated HT-29 CSCs were independently subjected to three different experiments on three different days. Cell culture, immunohistochemical staining and cell cycle analyzes were performed. The decrease in TGF-B concentration in HT-29 cells has shown the inhibitory effect on cancer proliferation. TGF-B significantly reduced cancer stem cell growth in the presence of JNK. The expression density is higher in the TGF-B CSC control group than the HT-29 cell line. This can be explained with the stemness property of cancer stem cells based on the knowledge that TGF-B is involved in stem cell growth and regulation. Considering that JNK is necessary for the inhibition of ERK activation, the presence of JNK

increased ERK activation in cancer stem cells. Cyclin D2 was observed to inhibit proliferation in the presence of JNK. Cell cycle analysis showed less cell proliferation in JNK inhibitor-treated HT-29 CSCs, while the highest cell proliferation was observed in HT-29 cells and HT-29 CSCs in the S phase. HT-29 CSCs and HT-29 cells had the same cell density in the cell cycle stages, while JNK inhibitör-treated HT-29 CSCs underwent a significant decrease in cell density in the S phase and were arrest in the G2/M phase. Targeting the JNK signaling, given the roles of the JNK inhibitor in the cancer stem cell, has the potential to offer therapeutic approaches by suppressing cancer stem cell stemness and niche. Identifying specific selective inhibitors is an important step in developing targeted therapies for cancer.

Keywords: Cancer stem cell, JNK inhibiton, colon cancer, TGFB, ERK1/2, Cyclind2

FIRST REPORT OF *CALIGUS BONITO* WILSON C.B., 1905 (COPEPODA:CALIGIDAE) PARASITIC ON LITTLE TUNNY, *EUTHYNNUS ALLETTERATUS* (RAFINESQUE, 1810), FROM THE MEDITERRANEAN WATERS OFF THE TURKISH COAST

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ABSTRACT

This study presents the first report of *Caligus bonito*, a species of parasitic copepod belonging to the genus *Caligus* O.F. Müller, 1785 (Copepoda: Caligidae) from the Little tunny, *Euthynnus alletteratus* (Rafinesque, 1810), caught in Gulf of Antalya, Türkiye. Although *C. bonito* was previously reported from the Mediterranean, the current study presents the first occurrence of *C. bonito* in the Mediterranean waters off the Turkish coast. Although, *C. bonito* is a well-known member of the genus *Caligus*, there are many incomplete descriptions available in the previous literature which cause contradictions with its morphological features. Therefore, herein, the morphology of *C. bonito* was re-visited and supplementary description of the key diagnostic characters of the newly collected material of *C. bonito* was presented. Adult female specimens of *C. bonito* (n=2) were removed from the buccal cavity of a Little tunny (Total Body Length = 80 cm) was purchased from the Antalya fish auction, fixed in 70% ethanol and cleared in lactic acid for 2 hours. An Olympus BX51 microscope equipped with differential interference contrast (DIC) and a drawing tube were used to make drawings of the key diagnostic characters in modern standards. Morphological differences observed between the newly collected specimens and the material presented in the previous descriptions were compared. Measurements were made with an ocular micrometer. Female specimens comprising subcircular cephalothorax, free fourth pedigerous somite, genital complex, and 1-segmented abdomen. Total body length was measured as 6.98−7.02 mm. Cephalothoracic shield suborbicular. Genital complex with distinctly lobate posterolateral corners. Abdomen one segmented, long and without segmentation, about 1.17 times longer than genital complex. Armature on rami of legs 1−4 were identical in accordance with the previous descriptions of *C. bonito*. Morphological examination resulted with minor differences such as differences in body size. However, this minor difference can be attributed to the intraspecific differences resulted from geographical variations.

Keywords: *Caligus bonito*, *Euthynnus alletteratus*, parasitic copepod, taxonomy, Mediterranean, Türkiye.

AKALAZYANIN CERRAHİ TEDAVİSİNDE LAPAROTOMİ VE LAPAROSKOPİK YÖNTEMLERİN SONUÇLARININ ANALİZİ

ANALYSIS OF RESULTS OF LAPAROTOMIC AND LAPAROSCOPIC TREATMENT OF CARDIAC ACHALASIA

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ÖZET

Giriş: Şu anda, tüm dünyada tanınan, akalazya tedavisinin en uygun yöntemi, E. Heller tarafından 1913'te geliştirilen, anterior dikey ekstramukozal özofagokardiyomiyotomi olarak düşünülmelidir. Çünkü bu operasyon, yemek borusundan mideye yeterli gıda geçişini sağlar. Ancak hacmi küçük ve teknik olarak basit olan operasyonun intrakaviter aşamasından önce travmatik laparotomi veya torakotomi geliyordu. Bu duruma dayanarak, Heller'in ameliyatı için endikasyonlar sınırlıydı. Endo-cerrahi teknolojilerin tanıtılması ,şüphesiz akalazyanın cerrahi tedavisi üzerinde devrim niteliğinde bir etkiye sahip olmuştur. Minimal invaziv müdahalelerin etkinliği, açık cerrahi operasyonlardan daha düşük değildir – sırasıyla % 94 ve% 84 ve postoperatif komplikasyonların sıklığı daha düşüktür.

Çalışmanın amacı: Akalazya için laparotomi yaklaşımıyla gerçekleştirilen laparoskopik Heller-Dor operasyonu ve özofagokardiyomiyotomi sonuçlarını analiz etmek.

Gereç ve yöntemler: 2010'dan 2022'ye kadar olan dönemde evre II-III kardiyal akalazyası olan 26 hasta gözlemledik. Hastaların yaşları 22 ile 64 arasında değişiyordu. 9 (%34,62) erkek, 17 (%65,38) kadın vardı. Hastalığın süresi 3-20 yıldı. Hastalığın başlıca semptomları 19 (%90,5) hastada gözlenen disfaji, 17 (%80,95) hastada regürjitasyon, 11 (%52,4) hastada yutkunma sırasında sternum arkasında ağrı idi. Akalazya teşhisi, klinik ve enstrümantal yöntemler (radyografi, fibroözofagogastroskopi) kullanılarak gerçekleştirildi. Ameliyat öncesi hazırlıkların ardından hastalar opere edildi. Bunlardan 12 hastaya laparotomi ile özofagokardiyomiyotomi, 14 hastaya ise laparoskopik Heller-Dor operasyonu uygulandı.

Çalışmanın sonuçları: Tedavinin etkinliğini belirlemek için, tüm hastalara ameliyat sonrası baryum özofagus grafisi ve kardiyomiyotomi etkinliğinin en objektif yöntemi olarak özofageal manometri uygulandı. Ölümcül sonuçlar olmadı. Laparotomi girişinden yapılan özofagokardiyomiyotomi ameliyatının dezavantajı yemek borusu mukozasının geniş bir alanda (8-10 cm x 1 cm) korunmasız bırakılmasıdır. Bu nedenle, yemek borusunun kas zarının diseksiyon yerlerinde, divertiküller ve kardiyayı deforme eden yara dokusu oluşarak hastalığın nüksetmesine neden olur.Ameliyat sonrası geç dönemde 1 (%8,3) hastada hastalığın nüks ettiği görüldü. Hiç bir laparoskopik Heller-Dora operasyonu sırasında laparotomiye dönüş olmadı. Laparoskopik cerrahi sonrası nazogastrik tüp bırakılmadı, bu da postoperatif dönemin seyrini büyük ölçüde kolaylaştırdı. Hastalar hemen gün yataktan kalktı, ertesi günden itibaren sıvı gıda aldılar. Ameliyattan sonra karın derisinde 5-10 mm uzunluğunda 3-4 kesi kalır. Hastalığın şiddetine göre hastalar 1-3 gün içinde velerine taburcu edildi. 2-3 hafta sonra çalışmalarına izin verildi. Bununla birlikte, düşük travmatik yaklaşıma, iyi kozmetik etkiye, hastanın erken rehabilitasyonuna rağmen, laparoskopik özofagokardiyomiyotomi sırasında özofagus mukozasının intraoperatif perforasyonu şeklinde spesifik komplikasyonlar vardır. Kardiyomiyotomi sırasında 1 (%7.14) hastada Z şeklinde dikiş atılan ve Dor fundoplikasyon manşonu ile kapatılan özofagus mukozasında perforasyon görüldü. Bu hastaya dekompresyon için nazogastrik tüp yerleştirildi. Postoperatif dönem sorunsuz geçti, 5. gün taburcu edildi. Postoperatif erken ve geç dönemde disfaji nüksü görülmedi.

Laparoskopik giriş daha iyi görüş sağlar, girişim ve postoperatif rehabilitasyon sürelerini kısaltır ve seyrini kolaylaştırır, ayrıca komplikasyon sayısında önemli azalmaya katkıda bulunur ve iyi bir kozmetik etki sağlar. Komplikasyonların gelişmesini beklemeden ve yararsız konservatif tedavi yöntemleriyle zaman kaybetmeden cerrahi tedavi endikasyonlarının daha erken belirlenmesi hastaların iyileşmesini hızlandırabilir.

Anahtar kelimeler: Akalazya, laparotomi, laparoskopik, özofagokardiyomiyotomi

LOGISTICS AND MANAGEMENT IN HEALTHCARE

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ABSTRACT

This article examines the issues of the modern logistics system in healthcare, in the conditions of the development of market relations, the management of commodity movement, which is one of the most promising and multifaceted areas in economic and financial, production and economic activities with real volumes and quality of medical care, monitoring of the results of activities, an objective adequate assessment of the activities of medical institutions, a single the information space of healthcare in general, a logical and functional connection between management and medical personnel is also built. Healthcare logistics is a relatively new direction for medicine. And the peculiarity of studying logistics skills will accelerate the development of the medical field in the conditions of market relations. Where, there will be no such kind as medicine in need of elementary drugs, dissatisfied patients, a high level of epidemiological diseases, a shortage of beds and other inconveniences. Effective functioning of the healthcare system due to the development of system-forming factors (improvement of the organizational system, development of infrastructure and resource provision of healthcare, expansion of economic independence of healthcare institutions, increasing their responsibility for the economic results of their activities, implementation of a phased technological principle of functional distribution of diagnostic, preventive, medical and rehabilitation measures) in a logical and rational sequence will increase the medical and economic efficiency of the entire healthcare system. All the studied methods of managing medical institutions have ceased to be effective, because there is nothing permanent or predictable in the modern economic environment. It is extremely difficult to accurately predict market changes, consumer demand, the life cycle of a medical product, scientific and technical changes, and competition between subjects of market relations. The effectiveness of the management of the production of medical services is negatively affected by the trivial system of labor rationing, the absence or shortcomings in the work schedule, low stimulation and motivation of staff. The vast majority of decisions taken do not take into account the desire of the clientele and are prepared without taking into account and using modern technologies for organizing the management process, as a result of which there are no clearly developed plans for their implementation in the control system. A medical institution today is, as it were, the final point of concentration of all defects in the management of the healthcare system. The planning of the medical institution's activities is carried out on the basis of taking into account fragmentary information and an informal method of expert assessments without using modern methods of systematic, statistical and economic analysis (actuarial forecasting, correlation, regression, multifactor analysis, economic and mathematical modeling, etc.).

Keywords: logistics, management, functioning, healthcare system, medical and economic efficiency.

AFETLERDE SAĞLIK HİZMETLERİ: PALYATİF HASTALAR ÖZELİNDE BİR LİTERATÜR TARAMASI

HEALTH SERVICES IN DISASTERS: A LITERATURE REVIEW OF PALLIATIVE PATIENTS

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ÖZET

Ülkemizde geçmişten günümüze kadar birçok doğal ve insan kaynaklı afet yaşanmış ve hala yaşanmaya da devam etmektedir. Depremler, seller, heyelanlar başta olmak üzere afetler toplumlar üzerinde ciddi sağlık sorunlarına yol açmaktadır. Afetlerin yol açtığı olumsuz etkilerin en aza indirilebilmesi için öncelikle afet öncesinde tüm riskler belirlenmelidir. Afet öncesi sağlık hizmet sunumu ile ilgili hazırlık yapılmalı, afete müdahale aşamasında hızlı bir sağlık hizmeti sunumu sağlanmalı ve afet sonrasında da yeniden yapılanma ve iyileşme süreci içerisinde de gerekli çalışmalar yapılmalıdır. Afetlerden etkilenen riskli gruplar arasında, özel gereksinimlere sahip palyatif bakım hastaları yer almaktadır. Palyatif bakım hastaları genellikle yatağa bağımlı, tıbbı olarak sınırlı tedavileri bulunan ve terminal dönem hasta grubundan oluşmaktadır. Sağlık hizmet sunumu açısından bu durumun afet sırasında ve sonrasında daha da zor olabileceği görülmektedir. Palyatif bakım hastalarının bu özel gereksinimlerinden dolayı afet sırasında ve sonrasında da yeniden inşa süreci içerisine dahil edilmesi, bu grup özelinde çalışmaların yapılması gerekmektedir. Ayrıca afet öncesi sağlık hizmet planlamasında palyatif bakım hastalarına yönelik hazırlığın yer alması, afet sonrası dönemde kişiye oluşturacağı faydanın yanında, bu hasta grubunun yönetilmesinde sağlık bakım hizmetlerine öngörü oluşturacaktır. Bu noktadan hareketle çalışmada; afet yönetimi içerisinde sağlık hizmet sunumlarında palyatif bakım hastalarının yer almasının önemi ve bu hastaların ihtiyaçlarının ortaya koyulması amaçlanmıştır.

Anahtar kelimeler: Afet, afet yönetimi, afetlerde sağlık hizmeti, palyatif bakım hastaları.

ABSTRACT

Many natural and man-made disasters have been experienced in our country from past to present and continue to be experienced. Disasters, especially earthquakes, floods, and landslides, cause serious health problems on societies. In order to minimize the negative effects caused by disasters, all risks should be determined before the disaster. Preparations should be made for pre-disaster health service provision, rapid health service delivery should be provided during the disaster response phase, and necessary studies should be carried out during the restructuring and recovery process after the disaster. Palliative care patients with special needs are among the risky groups affected by disasters. Palliative care patients generally consist of bedridden patients with limited medical treatment and terminal patients. In terms of health service delivery, it is seen that this situation may be even more difficult during and after the disaster. Due to these special needs of palliative care patients, it is necessary to

include them in the reconstruction process during and after the disaster, and studies should be carried out specifically for this group. In addition, the inclusion of preparation for palliative care patients in the pre-disaster health service planning will create a foresight for health care services in the management of this patient group, as well as the benefit it will create for the person in the post-disaster period. From this point of view, in the study; It is aimed to reveal the importance of palliative care patients in health service delivery within disaster management and the needs of these patients.

Keywords: Disaster, disaster management, health care in disasters, palliative care patients.

DOĞAL AFETE MARUZ KALMIŞ BİREYLERE YAKLAŞIM VE ÇÖZÜM ÖNERİLERİ

APPROACH AND SOLUTION SUGGESTIONS TO INDIVIDUALS EXPOSED TO NATURAL DISASTER

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ÖZET

Ülkemiz coğrafi konumu nedeniyle deprem afeti başta olmak üzere sel ve taşkınlar, kütle hareketleri gibi çok sayıda doğal afete maruz kalmaktadır. Afetlere bağlı olarak fiziksel, ekonomik ve sosyal olarak sınıflandırılan afetlerin olumsuz sonuçları ortaya çıkmaktadır. Afet sırasında ve sonrasında yaşanan tüm kayıplar, afete maruz kalmış birçok insanı ruhsal ve bedensel açıdan etkileyerek farklı sağlık sorunlarına yol açmaktadır. Özellikle yaş, cinsiyet, kronik hastalıkların varlığı, özel gereksinime sahip olmak gibi birçok faktör, afetin yol açtığı olumsuz etkileri artırmaktadır. İncinebilir grup olarak ifade edilen çocuklar, yaşlılar, kadınlar (özellikle hamileler ve emziren kadınlar), engelli bireyler ayrıca afet bölgesinde çalışan meslek grupları afetlerin olumsuz etkilerine daha sık maruz kalmaktadır. Afete maruz kalmış bireylerin yaşanmış afete karşı göstermiş olduğu tepkileri anlayabilmek, afetzedeye yaklaşımda oldukça önemlidir. Afet sonrası yeniden yapılanma ve iyileşme süreci içerisinde de afete maruz kalmış bireylere yönelik yapılacak çalışmalar yer almaktadır. Afetin bireylere ortaya çıkarmış olduğu tepkilerin süresi her bireyin özelliklerine göre değişiklik göstermektedir. Bu nedenle bu bireylerin özelliklerinin farkında olmak, tepkileri anlayabilmek ve doğru bir yaklaşım göstererek afet öncesi yaşama dönüşün kolaylaştırılması gerekmektedir. Bu çalışmada afete maruz bireylerin ailesi, arkadaşları gibi sevdiklerine yeniden bağlanabilmesi için afetzedelere nasıl davranılması gerektiği ve bu amaçla da normalliğe dönüşün kolaylaşması için çözüm önerilerini ortaya koyabilmek amaçlanmaktadır.

Anahtar kelimeler: Doğal afet, afete maruziyet, ruhsal travma, afetzedeye yaklaşım.

ABSTRACT

Due to its geographical location, our country is exposed to many natural disasters such as earthquake disasters, floods and overflows, mass movements. Negative consequences of disasters, which are classified as physical, economic, and social, occur depending on disasters. All the losses experienced during and after the disaster affect many people who have been exposed to the disaster mentally and physically, causing different health problems. Many factors such as age, gender, presence of chronic diseases, and having special needs increase the negative effects of disasters. Children, the elderly, women (especially pregnant and lactating women), disabled individuals, and occupational groups working in the disaster area, which are expressed as vulnerable groups, are more frequently exposed to the negative effects of disasters. Understanding the reactions of individuals exposed to disasters to the experienced disaster is very important in approaching the disaster victim. In the post-disaster reconstruction and recovery process, there are studies to be carried out for individuals who have been

exposed to disasters. The duration of the response of the disaster to individuals varies according to the characteristics of each individual. For this reason, it is necessary to be aware of the characteristics of these individuals, to understand their reactions and to make it easier to return to pre-disaster life by showing the right approach. In this study, it is aimed to reveal how to treat disaster victims so that they can reconnect with their loved ones such as family and friends, and for this purpose, to put forward solutions for facilitating their return to normalcy.

Keywords: Natural disaster, exposure to disaster, psychological trauma, approach to the victim.

SUBKRİTİK SU YÖNTEMİYLE KATI ATIKLARDAN ELDE EDİLEN HİDROKÖMÜR İLE *MORCHELLA ESCULENTA* EKSTRAKTININ İMMOBİLİZASYONU, HAVA FİLTRESİNE UYGULANMASI VE ANTİMİKROBİYAL ÖZELLİKLERİNİN İNCELENMESİ

IMMOBILIZATION OF *MORCHELLA ESCULENTA* EXTRACT TO HYDROCHAR OBTAINED FROM SOLID WASTES BY SUBCRITICAL WATER METHOD, APPLICATION TO AIR FILTER AND INVESTIGATION OF ANTIMICROBIAL PROPERTIES

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ÖZET

Filtrasyon teknolojisi, aerosolleri ve hidrosolleri kontrol etmek için en yaygın kullanılan yöntemlerden biridir. Bununla birlikte, bir filtre yüzeyinde toplanan mikroorganizmalar canlı kalabilir ve büyüyebilir, bu da klima, havalandırma ve/veya su tedarik sistemlerinde olası kontaminasyonla sonuçlanabilir [1]. Bu tür durumlar lejyoner hastalığı, pontiac ateşi salgınları, solunum yolu enfeksiyonları gibi hastalıklara yol açmıştır [2]. Son zamanlarda, filtre ortamına uygulanabilen birkaç doğal ürün, nispeten daha az insan toksisitesi ile umut verici antimikrobiyal özellikler göstermiştir [3]. Bunlar arasında, halk dilinde "Kuzugöbeği" mantarı olarak *bilinen Morchella esculenta* (*M. esculenta*), doğal bir antimikrobiyal ve antioksidan ajanıdır[4].

Bu çalışmada, çevre kirliliğine neden olan bitki yaprakları, meyve kabuğu atıkları vb. çevresel atıkları temsil eden badem iç kabuklarından kritik altı su (SKS) yöntemiyle hidrokömür elde edilmiştir. Elde edilen hidrokömür, *M. esculenta*'nın soxhlet ekstraksiyon yöntemi ile elde edilen ekstraktı ile immobilize edilmiştir. Böylece hem maliyeti düşük bir şekilde hidrokömür elde edilmiş hem de çevresel atıkları yararlı bir malzemeye dönüştürülmüştür. Ayrıca immobilize edilen *M. esculenta* mantarı ekstraktı hidrokömürle sinerjetik antimikrobiyal etki ortaya çıkarmıştır. Bu çalışma, *M. esculenta* ekstraktlarının hidrokömür ile immobilizasyonu sonucu ortaya çıkan ürünün patojenik mikroorganizmalara karşı etkinliğinin, sadece ekstrakt veya hidrokömürden daha yüksek olduğunu varsaymaktadır. Hava filtrelerine enjekte edilen immobilize karışım, filtre üzerinde yaşayabilen ve hatta üreyebilen mikroorganizmaları engellemiştir. Sonuç olarak, havalandırmanın neden olduğu hastalıklar bu şekilde büyük ölçüde önlenebilir.

Anahtar kelimeler: Morchella esculenta, Hidrokömür, Filtre, Subkritikal Su

TEŞEKKÜR

Bu çalışma Mersin Üniversitesi bilimsel araştırma projesi (BAP-2022-1-TP2-4700) ile desteklenmiştir.

ABSTRACT

Filtration technology is one of the most widely used methods to control aerosols and hydrosols. However, microorganisms that collect on a filter surface can survive and grow, resulting in possible contamination of air conditioning, ventilation and/or water supply systems [1]. Such conditions have led to diseases such as Legionnaires' disease, Pontiac fever outbreaks, and respiratory tract infections [2]. Recently, several natural products that can be applied to filter media have shown promising antimicrobial properties with relatively less human toxicity [3]. Among them, *Morchella esculenta* (*M. esculenta*), colloquially known as the "Kuzu Göbeği" mushroom in the Turkey, is a natural antimicrobial and antioxidant agent [4].

In this study, hydrochar was obtained from almond kernel shells by the sub critical water (SCS) method, representing environmental wastes such as plant leaves, fruit peel wastes, etc. that cause environmental pollution. The obtained hydrochar was immobilized with the extract of *M. esculenta* extract obtained by the soxhlet extraction method. Thus, hydrochar was obtained at a low cost and environmental wastes were converted into a useful material. In addition, the immobilized *M. esculenta* extract produced a synergetic antimicrobial effect with hydrochar. This study hypothesises that the effectiveness of the product, which emerge as a result of the immobilization of *M. esculenta* extracts with hydrochar have been higher against pathogenic microorganisms than the extract or hydrochar alone. Immobilized mixture injected into the air filters inhibited the microorganisms that can survive and even reproduce on the filter. As a result, diseases caused by ventilation can be prevented to a large extent in this way.

Keywords: *Morchella esculenta*, Hydrochar, Filter, Subcritical water

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DETECTION OF MICROORGANISM IN INFECTED ROOT CANALS IN PATIENTS WITH DIABETES MELLITUS USING PCR TECHNIQUE

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ABSTRACT

Aim: The knowledge of microbial community profiles in root canal infections with diabetes mellitus are limited. Therefore, the aim of this study was to evaluate the presence of *Enterecoccus Faecalis, Prevotella Intermedia, Fusobactericum nucleatum, Porphyromonas gingivalis, Peptostreptecoccus micros, Streptecoccus spp* and *Candida albicans* in samples from primary and secondary infected root canals in patients with diabetes mellitus by using polymerase chain reaction (PCR). **Methods:** Microbial samples were taken from 30 root canals; 15 with primary infection and 15 with secondary infection. For molecular analysis of 6 bacterial and 1 fungal species, PCR technique was used. The DNA extracted from the samples was analyzed for the presence of target species by using species-specific primers. Data were analyzed using Pearson chi-squared and the Fisher's exact tests. A significance level of 5% was adopted. **Results:** All the specimens reacted positively with the universal bacterial primer pair. Tweny-one samples were yielded amplicons with 1 or more of 6 specific bacterial primer pairs. Nine specimens were positive for bacteria by PCR with the universal primer pair but did not have a positive reaction with any of the specific primers used. All migroorganisms were detected in equal prevalance in both primary and secondary root canal infections ($p>0.05$). *Streptecoccus spp*. was the most commonly detected species in both primary and secondary infections. *Streptecoccus spp.* was seen in 8 cases (53.3%) of primary infections and in 7 cases (44.7%) of secondary infections. It was followed by *Porphyromonas gingivalis'* in 33.3% of primary root canal infections and in 20% of secondary root canal infections. *Enterecoccus faecalis and Fusobacterium nucleatum* were not detected in any sample of primary root canal infection. *Candida albicans* was not detected in any samples. **Conclusion:** Primary and secondary root canal infections had similar polymicrobial composition in patients with diabetes mellitus.

Keywords: Diabetes Mellitus, root canal infection, PCR

KANSERDE İLAÇ DİRENÇLİLİĞİ

DRUG RESISTANCE IN CANCER

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ÖZET

Kanser hastalığının tedavisinde karşılaşılan klinik sorunlardan biride hastalara uygulanan kemoterapiye karşı tümör hücrelerinin geliştirdiği dirençtir. Var olan ve günümüzde kansere karşı kemoteröpatik olarak kullanılan antikanser ilaçların çoğu, tümör hücrelerine sitotoksik etki göstererek onların büyüme ve çoğalmalarını önlerler. Ancak kanser tedavisindeki amaç, vücutta tek bir malign hücre kalmaksızın tüm hücrelerin yok edilmesidir. Fakat gelinen son noktada böyle bir tedavinin birkaç istisna dışında hala mümkün olmadığı görülmektedir. Antikanser ilaçlarının tedavideki etkinliğini kısıtlayan önemli faktörlerden biride, tümör hücrelerinin kemotörapatik ajanlara karşı, bazı kanser türlerinde kendiliğinden, bazılarında ise kemoterapiden sonra geliştirdikleri direnç mekanizmalarıdır. Tümör hücrelerinin gösterdiği bu ilaçlara karşı direnç, ilaçların hücre dışına atılmasını sağlayan membran proteinlerinin ekspresyonunun bir sonucudur ve ilaçların hücre içindeki konsantrasyonlarının düşmesine neden olmaktadır.

Kanser tedavisinde başarıya ulaşmak için genellikle birden fazla anti-kanser ilaç uygulamasına gidilmekte, ancak sonradan kazanılan ya da tedavi öncesi kişi de var olan ilaç direnci, kemoterapi de başarıya ulaşmayı büyük ölçü de engellemektedir.

Kanser hücrelerinde görülen çoklu ilaç direnci ile ilgili olarak hücre siklusunda bulunan kontrol noktalarındaki değişiklikler, apoptotik mekanizmalardaki terslikler, hasarlanan hücresel hedeflerin onarımı ve hücre içi ilaç birikiminin azaltılması gibi çeşitli mekanizmalar bilinmektedir. İlaç direncini açıklayan birden fazla hücresel mekanizma vardır. Bu mekanizmalar, insan multi-drug rezistans ilişkili protein (MRP) tarafından ilaçların dışarı pompalanmasını, DNA topoizomeraz II gibi ilaç hedeflerindeki değişimleri ve bileşiklerin artan detoksifikasyonunu içermektedir. ATP bağımlı taşıyıcı proteinlerin şimdiye kadar bilinen en büyük protein grubudur.

Kanser hücrelerinde kemoterapötik ilaca direnç gelişimi, azalmış ilaç birikimi, artmış ilaç metabolizması ve ilaç etkinliğindeki değişiklikler gibi pek çok faktörle ilişkili olabilir.

Anahtar kelimeler: Kanser, İlaç, Direnç

ABSTRACT

One of the clinical problems encountered in the treatment of cancer is the resistance developed by tumor cells to chemotherapy administered to patients. Most of the anticancer drugs that exist and are currently used as a chemotherapeutic against cancer, inhibit the growth and proliferation of tumor cells by showing cytotoxic effects. However, the aim of cancer treatment is to destroy all cells without leaving a single malignant cell in the body. However, at the last point, it is seen that such a treatment is still not possible with a few exceptions. One of the important factors limiting the effectiveness of anticancer drugs in the treatment is the resistance mechanisms that tumor cells develop against chemotherapeutic agents spontaneously in some cancer types and after chemotherapy in others. The resistance to these drugs shown by tumor cells is a result of the expression of membrane proteins that allow drugs to be expelled from the cell, and causes the concentration of drugs to decrease in the cell.

In order to achieve success in cancer treatment, more than one anti-cancer drug application is usually applied, but the drug resistance acquired later or existing in the person before the treatment greatly hinders success in chemotherapy.

Various mechanisms are known for multidrug resistance seen in cancer cells, such as changes in cell cycle checkpoints, reversals in apoptotic mechanisms, repair of damaged cellular targets, and reduction of intracellular drug accumulation. There are multiple cellular mechanisms that explain drug resistance. These mechanisms include pumping out of drugs by human multi-drug resistance-associated protein (MRP), changes in drug targets such as DNA topoisomerase II, and increased detoxification of compounds. It is the largest known group of ATP-dependent carrier proteins so far.

The development of resistance to chemotherapeutic drugs in cancer cells may be associated with many factors such as decreased drug accumulation, increased drug metabolism and changes in drug efficacy.

Keywords: Cancer, Drug, Resistance

СИНТЕЗ И ИЗУЧЕНИЯ СВОЙСТВ АЗОТ, СЕРА И КИСЛОРОДСОДЕРЖАШИХ ГЕТЕРОЦИКЛИЧЕСКИХ СОЕДИНЕНИЙ

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АННОТАЦИЯ

Кеторолак является нестероидным противовоспалительным лекарственным средством с выраженным анальгезирующим, противовоспалительным и умеренным жаропонижающим свойством, действующим началом которого является 5–бензоил–2,3–дигидро–1Н– пирролизин–1–карбоновая кислота. Высокая токсичность этого препарата ($ЛД_{50}$ = 189 мг/кг, самцы белых крыс) ограничивает его широкое применение в качестве нестероидным противовоспалительным лекарственным средством.Селективное нестероидное противовоспалительное лекарственное средство «Мелоксикам» (дей– ствующее вещество 4–гидрокси–2–метил–N–(5–метил–1,3–тиазол–ил)–2Н–1,2–бензотиазин–3– карбоксамид 1,1–диоксид), широко применяется в медицинской практике для облегчения болей различного генеза. Согласно данным лабораторных исследований, мелоксикам является высокотоксичным препаратом. Значение $ЛД_{50}$ составляет (орально) 84 мг/кг для крыс. В связи с этим, поиск низкотоксичных соединений с выраженным противовоспалительным действием остается важной практической задачей.

Исследованы закономерности связи «структура–противовоспалительная активность токсичность», и выявлены структурные признаки, характерные нестероидным противовоспалительным лекарственным средствам с низким уровнем токсического действия. Проведено моделирование с учетом токсичности структур на основе 5–бензоил–2,3–дигидро–1Н– пирролизин–1–карбоновой кислоты (кеторола ка) и 4–гидрокси–2–метил–N–(5–метил–1,3–тиазолил)–2Н–1,2–бензотиазин–3–карбоксамид 1,1–диоксида (мелоксикама).

Кеторолак является нестероидным противовоспалительным лекарственным средством с выраженным анальгезирующим, противовоспалительным и умеренным жаропонижающим свойством, действующим началом которого является 5–бензоил–2,3–дигидро–1Н– пирролизин–1–карбоновая кислота. Высокая токсичность этого препарата ($ЛД_{50}$ = 189 мг/кг, самцы белых крыс) ограничивает его широкое применение в качестве нестероидным противовоспалительным лекарственным средством. Селективное нестероидное противо-воспалительное лекарственное средство «Мелоксикам» (дей– ствующее вещество 4–гидрокси–2–метил–N–(5– метил–1,3–тиазол–ил)–2Н–1,2–бензотиазин–3– карбоксамид 1,1–диоксид), широко применяется в медицинской практике для облегчения болей различного генеза. Согласно данным лабораторных исследований, мелоксикам является высокотоксичным препаратом. Значение $ЛД_{50}$ составляет (орально) 84 мг/кг для крыс. В связи с этим, поиск низкотоксичных соединений с выраженным противовоспалительным действием остается важной практической задачей.

Ключевые слова: противовоспалительный, анальгезирующий, жаропонижающий.

ABSTRACT

Ketorolac is a non-steroidal anti-inflammatory drug with a pronounced analgesic, anti-inflammatory and moderate antipyretic property, the active principle of which is 5-benzoyl-2,3-dihydro-1H-pyrrolysine-1 - carboxylic acid. The high toxicity of this drug (LD50 = 189 mg/kg, male white rats) limits its widespread use as a non-steroidal anti-inflammatory drug. Selective non-steroidal anti-inflammatory drug "Meloxicam" (active ingredient 4-hydroxy-2-methyl-N- (5-methyl-1,3-thiazol-yl) -2H-1,2-benzothiazine-3-carboxamide 1, 1-dioxide), is widely used in medical practice to relieve pain of various origins. According to laboratory studies, meloxicam is a highly toxic drug. The LD50 value is (oral) 84 mg/kg for rats. In this regard, the search for low-toxic compounds with a pronounced anti-inflammatory effect remains an important practical task.

The regularities of the relationship "structure-anti-inflammatory activity-toxicity" have been studied, and structural features characteristic of non-steroidal anti-inflammatory drugs with a low level of toxic action have been identified. Modeling was carried out taking into account the toxicity of structures based on 5-benzoyl-2,3-dihydro-1H-pyrrolysine-1-carboxylic acid (ketorol ka) and 4-hydroxy-2-methyl-N-(5-methyl-1,3- thiazolyl)-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide (meloxicam).

Ketorolac is a non-steroidal anti-inflammatory drug with a pronounced analgesic, anti-inflammatory and moderate antipyretic property, the active principle of which is 5-benzoyl-2,3-dihydro-1H-pyrrolysine-1 - carboxylic acid. The high toxicity of this drug (LD50 = 189 mg/kg, male white rats) limits its widespread use as a non-steroidal anti-inflammatory drug. Selective non-steroidal anti-inflammatory drug "Meloxicam" (active ingredient 4-hydroxy-2-methyl-N-(5-methyl-1,3-thiazol-yl)-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide), is widely used in medical practice to relieve pain of various origins. According to laboratory studies, meloxicam is a highly toxic drug. The LD50 value is (oral) 84 mg/kg for rats. In this regard, the search for low-toxic compounds with a pronounced anti-inflammatory effect remains an important practical task.

Keywords: anti-inflammatory, analgesic, antipyretic.

GLOBAL TRENDS IN UNMET NEED FOR FAMILY PLANNING AND PROSPECTS FOR THE FUTURE

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ABSTRACT

With the looming problem of overpopulation, family planning has been identified as a cost-effective intervention proven to result in long term positive impacts. Though the share of women of reproductive age using contraceptives has increased over time, there are an estimated 270 million women with an unmet need worldwide. The issue of unmet need for family planning is one that has far-reaching consequences with numerous factors contributing to the persistence of this phenomenon. Access to family planning is essential for individuals to control their fertility and exercise their reproductive rights. Despite global progress in the past few decades, significant gaps exist in many countries, particularly those in developing regions. Family planning healthcare delivery faces many challenges, including inadequate funding, shortage of trained healthcare providers, cultural and religious beliefs that limit access to and use of family planning services. In under-developed countries where it remains a pertinent issue, a wider range of factors from lack of political will, socio-economic factors, gender inequality to inadequate healthcare infrastructure contribute to the problem. Addressing unmet need for family planning requires a multi-faceted approach that involves governments, international organizations, healthcare providers and local communities. By understanding the complexities surrounding the unmet need for family planning, effective interventions focused on increasing access to services and information, strengthening healthcare systems, promoting reproductive health and addressing cultural and social barriers can be implemented. Ultimately, tackling this issue is critical for achieving the Sustainable Development Goals, improving health outcomes, and development globally.

Keywords: family planning, contraceptive use, unmet need, reproductive health.

BIOFILM FORMATION IN ESKAPE PATHOGENS

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ABSTRACT

ESKAPE is an acronym used to represent a group of medically important bacteria that are known for their ability to escape the effects of antibiotics. The acronym stands for *Enterococcus faecium, Staphylococcus aureus, Klebsiella pneumoniae, Acinetobacter baumannii, Pseudomonas aeruginosa*, and Enterobacter species (1,2). Biofilm formation is a common characteristic of many ESKAPE pathogens and contributes to their virulence and antibiotic resistance (3). A biofilm is a complex community of microorganisms that are embedded within a self-produced extracellular matrix. Biofilms provide protection and survival advantages to bacteria, making them highly resistant to antimicrobial agents and immune responses (4,5). The initial step in biofilm formation is the attachment of bacterial cells to a surface. ESKAPE pathogens can attach to various surfaces, including medical devices, host tissues, and indwelling catheters (6). Once attached, the bacteria start producing an extracellular matrix, which consists of polysaccharides, proteins, DNA, and other molecules. This matrix helps to hold the bacterial cells together and provides structural support to the biofilm. Bacterial cells within the biofilm multiply and grow, leading to the formation of microcolonies. As the biofilm matures, it becomes more resistant to antibiotics and host immune defenses. Additionally, the biofilm lifestyle induces changes in gene expression that can enhance antibiotic resistance mechanisms within the bacteria. Mature biofilms can release planktonic cells that can spread to other sites within the host or be transmitted to new hosts, contributing to the persistence, and spread of infections caused by ESKAPE pathogens (7,8). Biofilm-related infections are challenging to treat and can lead to chronic infections and recurrent episodes. Strategies to combat biofilm formation in ESKAPE pathogens include the development of new antimicrobial agents, disruption of the biofilm matrix, and improved prevention measures such as proper disinfection and sterile techniques in healthcare settings.

Keywords: biofilm, ESKAPE, antimicrobial resistance

GERİLİM TİPİ BAŞ AĞRILI HASTALARDA FASYAL DİSTORSİYON MODELİNİN SERVİKAL EKLEM POZİSYON HİSSİ ÜZERİNE ETKİSİ: PİLOT ÇALIŞMA

THE EFFECT OF FASCIAL DISTORTION MODEL ON CERVICAL JOINT POSITION SENSE IN TENSION HEADACHE PATIENTS: PILOT STUDY

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ÖZET

Amaç: Servikal bölgede gerilim tipi baş ağrısına sebep olan mekanik değişiklikler fasyal distorsiyonlara sebep olmaktadır. Çalışmanın amacı gerilim tipi baş ağrılı hastalarda Fasyal Distorsiyon Modeli (FDM)'nin servikal eklem pozisyon hissi üzerine etkisini araştırmaktı. **Yöntem**: Bu kesitsel araştırmaya 30.90±5.30 yaş arasında gerilim tipi baş ağrısı olan 10 birey (5 kadın, 5 erkek) katıldı. Bireylerin oksipital bölgelerine 4 seans FDM tekniği uygulandı. Servikal eklem pozisyon hissini değerlendirmek için lazer imleç yardımlı açı tekrarlama testi kullanıldı. Test fleksiyon, ekstansiyon, bilateral rotasyon ve lateral fleksiyon yönlerinde üç tekrarlı yapıldı. Başlangıçtan sapma, hata açısı olarak kaydedildi. **Bulgular:** Tedavi sonrası servikal eklem pozisyon hissi fleksiyon ve ekstansiyon yönünde anlamlı fark bulundu ($p<0.05$). Bilateral rotasyonun ve lateral fleksiyonun sapma açılarında azalma olduğu belirlendi ($p<0.05$). **Sonuç:** Gerilim tipi baş ağrılı hastalarda Fasyal Distorsiyon Modeli (FDM)'nin servikal eklem pozisyon hissi üzerine etkili bir tedavi yöntemidir. Fizyoterapi ve rehabilitasyon programlarında FDM bir tedavi seçeneği olarak düşünülebilir. Diğer fizyoterapi müdahalelerine göre FDM'nin kısa sürede propriosepsiyonda etkili olması, klinikte avantaj sağlayabilir.

Anahtar kelimeler: servikal eklem pozisyon hissi, Fasyal distorsiyon modeli, fasya, gerilim tipi baş ağrısı

ABSTRACT

Objective: Mechanical changes that cause tension-type headache in the cervical region cause facial distortions. The aim of the study was to investigate the effect of Facial Distortion Model (FDM) on cervical joint position sense in patients with tension-type headache. **Method:** Ten individuals (5 female, 5 male) with tension-type headache between the ages of 30.90±5.30 years participated in this cross-

sectional study. Four sessions of FDM technique were applied to the occipital regions of the individuals. Laser cursor assisted angle repetition test was used to evaluate cervical joint position sense. The test was performed in three repetitions in flexion, extension, bilateral rotation and lateral flexion directions. The deviation from the baseline was recorded as the error angle.

Results: After the treatment, a significant difference was found in the cervical joint position sense, flexion and extension ($p<0.05$). It was determined that the error angles of bilateral rotation and lateral flexion were decreased ($p<0.05$). **Conclusion:** Facial Distortion Model (FDM) is an effective treatment method on cervical joint position sense in patients with tension-type headache. FDM can be considered as a treatment option in physiotherapy and rehabilitation programs. Compared to other physiotherapy interventions, FDM's effectiveness in proprioception in a short time may provide a clinical advantage.

Keywords: cervical joint position sense, Fascial distortion model, Fasciae, tension type headache

ASSOCIATION BETWEEN FRAILTY AND FALLS RISK IN ADULTS AGED 65 YEARS AND OLDER WITH TYPE 2 DIABETES

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ABSTRACT

Objective: This study aimed to examine the relationship between frailty and the risk of falls in older adults (≥65 years) with type 2 diabetes mellitus.

Methods: A cross-sectional, correlational study was conducted with a sample of 146 individuals aged 65 years or older with type 2 diabetes mellitus who presented to the internal medicine outpatient clinic of a public hospital in eastern Turkey between June and November 2022. Participants were assessed using a personal information form, the Mini-Mental State Examination, Edmonton Frail Scale, Morse Fall Scale, and Katz Index of Independence in Activities of Daily Living (ADL). IBM SPSS Statistics version 22.0 was used for data analysis.

Results: The participants' mean age was 71.79±4.80 years, and 56.8% were female. The mean frailty score was 5.59±3.46 and 35.60% of the participants were not frail. The mean falls risk score was 45.65±26.07, with 43.2% of participants evaluated as having high risk of falls. There was a strong positive correlation between falls risk score and frailty. Level of frailty, ADL index, age, and the use of drugs other than diabetes medications explained 71.8% of the variation in falls risk (ß=0.492; $p<0.001$; R^2=0.718).

Conclusion: Frailty is positively associated with risk of falls in adults aged 65 years and older with type 2 diabetes mellitus.

Keywords: Frailty, Fall Risk, Tip 2 Diabetes Mellitus, Geriatrics.

CALORIC VALUE AND PHYSICO-CHEMICAL CHARACTERISTICS OF "LA MÉDITÉRANÉENNE" ALGERIAN (CAVENDISH) GREEN BANANA FLOUR

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ABSTRACT

The Banana is one of the most widely consumed fruit in the world. Green bananas have a high nutritional value as they represent a good source of resistant starch, phenolic acids, minerals and vitamins that are essential to public health, allowing them to be classified as a functional food.

The aim of our work is to study the physicochemical characteristics and caloric value of the flour of the Cavendish subgroup green bananas, the large dwarf banana grown in Algeria at the "El-Mazouzi" nursery under the name "La Méditerranéenne".

Physicochemical analyses were carried out in accordance with the Association of Official Analytical Chemists (AOAC), and followed a completely randomized design with three experimental replicates. The energy value was determined by calculation, according to the formula of Coleman (1970) using the coefficients of Atwater and Rosa (1899).

The results presented the physicochemical analysis of "La Méditerranéenne" green banana flour, as well as its caloric value, as described in the following table.

Parameters	Values
Carbohydrates (g/100g)	78,41 ± 0,28
Starch (g/100g)	74,45 ± 0,62
Sugars (g/100g)	0,14 ± 0,02
Fat (g/100g)	4,42 ± 0,07
Protein (g/100g)	5,55 ± 0,04
Caloric value (kcal/100g)	375,60 ± 0,93

The results found prove the quality of our green banana flour and will enable us to continue our scientific research and move forward to develop other, more efficient techniques.

Keywords: Green banana, Banana flour, Physicochemical study, Caloric value

YOĞUN BAKIM HASTALARINDA NORMAL VE YÜKSEK PROTEİNLİ ENTERAL BESLENMENİN MALNÜTRİSYON VE ANTROPOMETRİK PARAMETRELERE ETKİSİNİN ARAŞTIRILMASI

NORMAL AND HIGH PROTEIN ENTERAL IN ICU PATIENTS MALNUTRITION AND ANTHROOPOMETRIC PARAMETERS OF NUTRITION INVESTIGATION OF ITS EFFECT

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ÖZET

Bu çalışma yoğun bakım ünitesinde(YBÜ), enteral nütrisyon(EN) beslenenen hastalarda normal ve yüksek protein alımının malnütrisyon ve antropometrik parametreler üzerindeki etkisini incelenmek amacıyla yapılmıştır. Araştırma Temmuz-Ekim 2022 tarihleri arasında İzmir Atatürk Eğitim ve Araştırma Hastanesi YBÜ'de 19-64 yaş aralığında EN desteği alan hastalar prospektif olarak izlenmiştir. Katılımcılar normal(n=21) ve yüksek proteinli(n=21) toplam 42 birey olarak planlanmıştır. Normal proteinli EN grup 0,8-1,2 g/kg/gün, yüksek proteinli EN grup ise >1,2 g/kg/gün olarak planlanmıştır. Çalışmaya katılan hastaların antropometrik ölçümleri üst-orta kol çevresi (cm), baldır çevresi (cm) ve diz boyu (cm) 1, 3, 5 ve 15'inci günlerde araştırmacı tarafından vücut ağırlığı (kg) ve boy uzunluğu (m) hesaplanmıştır. Malnütrisyon taraması için NRS 2002, 1.ve 15. günlerde uygulanmıştır. EN grupları arasında yaş, cinsiyet, medeni hal, ağırlık, boy ve BKİ ortalamaları yönünden anlamlı bir fark bulunmamıştır. ($p>0.05$). Bireylerin ağırlık, boy ve BKİ ortalamaları 75.57±13.97 kg ,171.26±8.51 cm ve 25.72±4.26 kg/m^2 olarak bulunmuştur. Yüksek protein grubuna 1.gün (90,36±9,2g) ve 15. gün (90,36±9,2g) verilen protein miktarı, normal protein grubundan istatistiksel olarak anlamlı düzeyde daha yüksek bulunmuştur ($p<0.05$). Diz boyu, üst orta kol çevresi ortalama ve referans persentil değerlerinde EN grupları arasında anlamlı bir fark görülmemiştir ($p>0.05$).Çalışmada 1. ve 15.gün baldır çevresi ise sırasıyla (44.62±14.58, 33.95±3.51 ($p=0.001$) ve 42.62±8.95, 33.95±3.51 ($p<0.05$)) normal protein grubunda anlamlı düzeyde daha yüksek saptanmıştır.İki grupta da NRS2002 skoru değişimi (%90.5 saptanan yüksek malnütsiyon, 15. gün normal ve yüksek protein grubunda sırasıyla %0 ve %4.8'e düşmüştür) istatistiksel olarak anlamlı bulunmuştur ($p=0.001$). Bu çalışmada alınan protein miktarı ile üst orta kol çevresi, BKI ve NRS2002 değerleri arasında istatistiksel olarak anlamlı bir ilişki olmadığı saptanmıştır ($p>0.05$).Çalışmanın geçerliliğini artırmak için daha geniş örneklem, uzun vadeli klinik çalışmalara, ihtiyaç duyulmaktadır.

Anahtar kelimeler: YBÜ, Antropometrik Ölçümler, EN, Malnütrisyon, NRS 2002

ABSTRACT

This study was conducted to investigate the effect of normal and high protein intake on malnutrition and anthropometric parameters in patients fed enteral nutrition (EN) in the intensive care unit (ICU). Research Between July and October 2022, patients aged 19-64 who received EN support in Izmir Atatürk Training and Research Hospital ICU were followed up prospectively. Participants were planned as a total of 42 individuals with normal (n=21) and high protein (n=21). The normal protein EN group

was planned as 0.8-1.2 g/kg/day, and the high protein EN group was planned as >1.2 g/kg/day. The anthropometric measurements of the patients participating in the study were upper-middle arm circumference (cm), calf circumference (cm) and knee length (cm) and body weight (kg) and height (m) were calculated by the researcher on the 1st, 3rd, 5th and 15th days. For malnutrition screening, NRS 2002 was administered on days 1 and 15. There was no significant difference between EN groups in terms of age, gender, marital status, weight, height and BMI averages. ($p>0.05$). The mean weight, height and BMI of the individuals were found to be 75.57±13.97 kg, 171.26±8.51 cm and 25.72±4.26 kg/m2. The amount of protein given to the high protein group on the 1st day (90.36±9.2g) and on the 15th day (90.36±9.2g) was found to be statistically significantly higher than the normal protein group ($p<0.05$). There was no significant difference between EN groups in terms of knee length, upper middle arm circumference and reference percentile values ($p>0.05$). In the study, calf circumference on the 1st and 15th days was (44.62±14.58, 33.95±3.51 ($p=0.001$) and 42.62±8.95, 33.95±3.51 ($p<0.05$)) were found to be significantly higher in the normal protein group. The change in NRS2002 score in both groups (90.5% detected high malnutrition, 0% and 4.8% in the normal and high protein groups on the 15th day, respectively). e decreased) was found to be statistically significant ($p=0.001$). In this study, it was determined that there was no statistically significant relationship between the amount of protein taken and the upper middle arm circumference, BMI and NRS2002 values ($p>0.05$). Larger sample, long-term clinical studies are needed to increase the validity of the study.

Keywords: ICU, Anthropometric Measurements, EN, Malnutrition, NRS 2002

MAGNEZYUM VE DİABETES MELLİTUS İLİŞKİSİ

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ÖZET

Magnezyum, insan vücudunda yaklaşık olarak %60'ı kemiklerde, %40'ı yumuşak dokularda ve az miktarda da kanda bulunan bir mineraldir. Magnezyum, insan metabolizmasında gerçekleşen çok sayıda biyokimyasal olaylarda ve fizyolojik süreçlerde yer almaktadır. Magnezyumun DNA sentezi, RNA ekspresyonu, enerji üretimi, enerji üretimi için gerekli adenozin trifosfat molekülünün sentezlenmesi, glikoliz, protein sentezi gibi insan vücudunun işleyişi için gerçekleşen temel biyokimyasal reaksiyonlarda önemli rolleri vardır. Magnezyum dengesizliği diabetes mellitus ve diabetes mellitus'tan kaynaklı komplikasyonlarda dahil olmak üzere birçok kronik metabolik rahatsızlığa neden olabilmektedir. Magnezyum dengesizliğinde çoğunlukla hipermagnezemiye kıyasla hipomagnezemi ile karşılaşılmaktadır. Hipomagezeminin belirtileri arasında yorgunluk, halsizlik, saç dökülmesi, iştah kaybı ve konstipasyon yer almaktadır. Magnezyum eksikliğinde glikoz taşıyıcı translokasyonun inhibe olması, insülin direncinin artması, lipit, karbonhidrat ve protein metabolizmasında bozulmalar meydana gelmektedir. Bu olaylar da diabetes mellitus ve diabetes mellitus'tan kaynaklı komplikasyonların başlamasına veya ilerlemesine neden olabilmektedir. Diabetes mellitus, karbonhidrat, protein ve lipid metabolizmalarındaki bozukluklar sonucu meydana gelen kan glukozu regülasyonundaki dengesizlikler ile karakterize bir hastalıktır. Diyabetin hastalık süresi uzadıkça bazı komplikasyonların oluşma ihtimali de artmaktadır. Bu komplikasyonlar arasında nefropati, retinopati, nöropati ve makrovasküler komplikasyonlar yer almaktadır. Birçok çalışmada bu komplikasyonlara sahip bireylerde hipomagnezemi görüldüğü bildirilmiştir. Serum magnezyum konsantrasyonuyla açlık kan glikozu ve postprandiyal kan glukozu arasında negatif korelasyon olduğu belirtilmektedir. Magnezyum takviyesi kullanımının var olan diabetes mellitus ve diabetes mellitus'tan kaynaklı komplikasyonları iyileştirdiği bildirilmesine rağmen magnezyum takviyesinin diabetes mellitus ve komplikasyonlarının oluşum riskine karşı koruyucu etkisi olduğuna dair henüz net bir kanıt yoktur. Dünya genelinde gün geçtikçe diabetes mellitus hastalığının prevalansı hızla artmaktadır ve ciddi bir halk sağlığı sorunu haline gelmektedir. Bu hızlı artışta diabetes mellitus hastalığının ve komplikasyonlarının tedavisinde çeşitli alternatif tedavi arayışlarının artmasına neden olmuştur. Bu derlemenin amacı hem magnezyumun eksikliğinin hem de magnezyum takviyesinin diabetes mellitus'a ve diabetes mellitus'tan kaynaklı komplikasyonlara olan etkisinin değerlendirilmesi ve mekanizmalarının incelenmesidir.

Anahtar kelimeler: Magnezyum, Diyabetes Mellitus, Retinopati, Nefropati, Nöropati

ABSTRACT

Magnesium is a mineral found in the human body approximately 60% in the bones, 40% in the soft tissues and a small amount in the blood. Magnesium is involved in numerous biochemical events and physiological processes in human metabolism. Magnesium has important roles in basic biochemical reactions that take place for the functioning of the human body, such as DNA synthesis, RNA expression, energy production, synthesis of the adenosine triphosphate molecule necessary for energy production, glycolysis, protein synthesis. Magnesium imbalance can cause many chronic metabolic

disorders, including diabetes mellitus and complications from diabetes mellitus. In magnesium imbalance, hypomagnesemia is often encountered compared to hypermagnesemia. Symptoms of hypomagnesemia include fatigue, weakness, hair loss, loss of appetite, and constipation. In magnesium deficiency, inhibition of glucose transporter translocation, increased insulin resistance, and deterioration in lipid, carbohydrate and protein metabolism occur. These events may lead to the onset or progression of diabetes mellitus and complications arising from diabetes mellitus. Diabetes mellitus is a disease characterized by imbalances in blood glucose regulation resulting from disturbances in carbohydrate, protein and lipid metabolisms. The longer the duration of diabetes, the higher the likelihood of complications. These complications include nephropathy, retinopathy, neuropathy, and macrovascular complications. Many studies have reported hypomagnesemia in individuals with these complications. It is stated that there is a negative correlation between serum magnesium concentration and fasting blood glucose and postprandial blood glucose. Although it has been reported that the use of magnesium supplements improves existing diabetes mellitus and complications arising from diabetes mellitus, there is no clear evidence that magnesium supplementation has a protective effect against the risk of diabetes mellitus and its complications. The prevalence of diabetes mellitus is increasing day by day worldwide and is becoming a serious public health problem. This rapid increase has led to an increase in the search for various alternative treatments in the treatment of diabetes mellitus and its complications. The aim of this review is to evaluate the effects of both magnesium deficiency and magnesium supplementation on diabetes mellitus and complications from diabetes mellitus, and to examine their mechanisms.

Keywords: Magnesium, Diabetes Mellitus, Retinopathy, Nephropathy, Neuropath

THE USE OF AROMATHERAPY AS A COMPLEMENTARY MEDICINE APPLICATION IN TURKEY: A SYSTEMATIC REVIEW OF GRADUATE THESES IN NURSING

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ÖZET

Giriş ve Amaç: Geleneksel ve tamamlayıcı tıp (GETAT), insanların bedensel ve ruhsal hastalıklarından korunma, bunlara tanı koyma, tedavi etme ve sağlık halinin devamını sürdürmede kullanılmaktadır. Bu yöntemlerden en önemlilerinden biri olan aromaterapi, aromatik esansiyel yağların sağlığın korunması, geliştirilmesi için kullanılmaktadır. Bu araştırmamın amacı hemşirelik alanında yapılan tezlerde araomaterapinin kullanımını sistematik olarak tezler üzerinden değerlendirmektir. Yüksek Öğretim Kurumu (YÖK) Tez Merkezi'ne kayıtlı olan yüksek lisans ve doktora tezlerini analiz edilerek bu konuda hemşirelik yaklaşımlarını ortaya koymaktır.

Yöntem: Çalışma sistematik derleme olup, 1-7 Aralık 2022 tarihleri arasında "**Aromaterapi**", anahtar kelimeleri verilerek, tüm tezlerden açık erişimli olan tezler taranmıştır. Ulaşılan 50 tezden araştırmada dahil edilme kriterlerine göre, hemşirelikte yüksek lisans ve doktora tezi olması, anahtar kelimeler arasında "aromaterapi" olması, kriterlerine uygun 42 tez dahil edilmiştir. Verilerin analizi için araştırmacılar tarafından geliştirilen veri özetleme formu kullanılarak yapılmış olan tezler kayıt edilmiş ve değerlendirilmiştir.

Bulgular: Tezlerin 2007-2022 yılları arasında yapıldığı, 28 tanesinin doktora ve 14 tanesinin yüksek lisans düzeyinde olduğu bulundu. Bu tezlerden iki tanesinin 20007-2010 yıllarında, beş tanesinin 2011-2014 yıllarında,18 tanesinin 2015-2018 yıllarında, 17 tanesinin 2019-2022 yıllarında yapıldığı bulundu. Tezlerin 37'si deneysel çalışma olup 31'inde hastalar, beşinde çocuk-bebek ve yeni doğanlar örneklem grubunu oluşturdu. Aromaterapide en çok kullanılan esansiyel yağlar; lavanta yağı, tatlı badem yağı, okaliptüs yağıdır. Çalışmamızda tezlerden yedisinde aromaterapi ile birlikte farklı tamamlayıcı ve geleneksel uygulamaların farklı kombinasyonlarla kullanıldığı bulundu.

Tartışma ve Sonuç: Geleneksel ve tamamlayıcı tıp uygulamalarından aromaterapi kullanımı hemşirelik alanında zaman zaman kullanılmaktadır. İnhalasyon yada aromaterapi masajı yöntemi ile kullanılan esansiyel yağların hasta bakım sürecinde farklı yaş gruplarında uygulandığı görülmektedir. Aromaterapi ile ilgili çalışmaların özellikle kronik hastalığı olan bireylerde tercih edildiği bulundu.

Anahtar kelimeler: Aromaterapi, Hemşire, Tamamlayıcı tıp, Alternatif tıp, Bakım.

ABSTRACT

Introduction and Aim: Traditional and complementary medicine is used to protect people from physical and mental diseases, diagnose and treat diseases, and maintain their health. Aromatherapy, one of the most important of these methods, uses aromatic essential oils to protect and improve one's health.

The aim of this study is to systematically evaluate the use of aromatherapy in theses in the field of nursing. Master's and doctoral theses registered in the Higher Education Institution Thesis Center were analyzed to show the nursing approaches in this regard.

Method: The study is a systematic review of all theses with open access that used "Aromatherapy" as a keyword between December 1-7, 2022. Among the 50 theses reached, 42 that met the inclusion criteria were included in the research. The inclusion criteria were being a master's or doctoral thesis in nursing and having "aromatherapy" among the keywords. To analyze the data, a data summary form developed by the researchers was used to record and evaluate the theses.

Findings: The theses were written between 2007-2022; 28 were at doctorate level and 14 were at master's level. Two were written between 20007-2010, five between 2011-2014, 18 between 2015-2018, and 17 between 2019-2022. A majority, 37 of the theses were experimental studies. The sample of 31 of them consisted of patients and 5 were child-infant and newborns. The most used essential oils in aromatherapy were lavender, sweet almond, and eucalyptus. Different complementary and traditional applications were used in different combinations with aromatherapy in seven of the theses.

Discussion and Conclusion: Aromatherapy, one of the traditional and complementary medicine practices, is used from time to time in the field of nursing. Essential oils are applied through inhalation or aromatherapy massage in different age groups during the patient care process. The use of aromatherapy is especially preferred in individuals with chronic diseases.

Keywords: Aromatherapy, Nurse, Complementary medicine, Alternative medicine, Care.

İZONİAZİD İLE BAĞIRSAK TOKSİSİTESİ OLUŞTURULAN RATLARDA CHRYSİNİN OKSİDATİF STRES VE BAZI SİTOKİN DÜZEYLERİ ÜZERİNE ETKİSİ

THE EFFECT OF CHRYSIN ON OXIDATIVE STRESS AND SOME CYTOKINE LEVELS IN RATS WITH INTESTINAL TOXICITY INDUCED BY ISONIAZID

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ÖZET

Tüberküloz, tüm dünyada yaklaşık 10 milyon yeni vaka ve 1.3 milyon ölüm ile ciddi bir halk sağlığı sorunu haline gelmiştir. İzoniazid (INH) yaygın olarak reçete edilen en önemli anti-tüberküloz ajanları arasındadır. Bununla birlikte, toksik etkileri ile ilişkili ciddi yan etkileri nedeniyle başta doz ayarlaması nedeniyle klinik kullanımı kısıtlıdır. Bağırsak dokusunu koruyucu ajanların geliştirilmesi, bu antibiyotiklerin klinik faydalarının iyileştirilmesi ve ciddi yan etkilerinin azaltılması açısından önemlidir. Antioksidanlar, oksidatif stresle ilişkili hasarların meydana gelmesini önlediğinden dolayı, araştırmalarda giderek daha popüler hale gelmektedir. Chrysin (CR) bal, arı propolisi ve birçok bitki özünde bol miktarda bulunan doğal bir diyet fitokimyasalıdır. CR, farmakolojik ve biyolojik olarak birçok aktiviteye sahiptir. Bu aktivitlerin başında antioksidan, anti-inflamatuar, anti-apoptotik özelliği başta olmak üzere anti-hipertansif, anti-diyabetik özelliklere sahiptir. Mevcut çalışmadaki amaç, erkek sıçanlarda INH ile indüklenen bağırsak toksisitesine karşı CR'nin potansiyel koruyucu etkisini araştırmaktır. 35 adet sıçan, kontrol, INH, CR, INH+CR25 ve INHCR50 olmak üzere rastgele 5 gruba ayrılmıştır. Sıçanlar 7 ardışık gün boyunca tek başına INH (400 mg/kg vücut ağırlığı) veya CR (25 ve 50 mg/kg vücut ağırlığı) ile oral gavaj yoluyla tedavi edilmiştir. Tedavi sonrası bağırsak dokuları alınıp temizlendikten sonra KCl (1,15%) ile homojenizatör ile homojenize edildi. Homojenatlar santrüfüj edildikten sonra süpernatant kısımları alınarak biyokimyasal analizlerde kullanılmak üzere -80^{o}C'de saklandı. Süpernatantlardan oksidatif stresi analiz edebilmek için, lipid peroksidasyonu göstergesi malondialdehit (MDA) düzeyi analiz edildi. Ayrıca, süperoksit dismutaz (SOD), katalaz (CAT), glutatyon peroksidaz (GPx) aktivitesi ve glutatyon (GSH) düzeyi gibi antioksidan biyobelirteçlerdeki değişiklikler analiz edilmiştir. İnfşamasyon düzeyi analizi için, nükleer faktör kappa B (NF-κB), tümör nekroz faktörü-α (TNF-α) ve İnterlökin 1ß (IL-1ß) seviyeleri analiz edildi. Verilerin istatistiksel analizinde One-way ANOVA/DUNCAN testi kullanıldı. INH uygulaması, MDA düzeyini önemli ölçüde artırmış ($p<0,05$) ve SOD, CAT, GPx aktiviteleri ile GSH düzeyinde düşüşe ($p<0,05$) neden olarak oksidatif stresi arttırmıştır. INH tedavisi ayrıca NF-κB, TNF-α ve IL-1ß seviyelerini de artırarak ($p<0,05$) inflamasyon düzeyini arttırmıştır. CR ile birlikte tedavi, MDA düzeyini azaltmış ve antioksidan kapasiteyi arttırarak oksidatif stresi azaltmıştır. Bununla birlikte inflamasyon belirteçlerinin düzeyini azaltarak inflamasyonu azaltmıştır. Sonuç olarak, INH tarafından indüklenen bağırsak toksisitesinde, CR'nin oksidatif stres ve inflamasyon düzeyini azaltarak koruyucu bir etkiye sahip olduğu gösterilmiştir.

Anahtar kelimeler: Bağırsak toksisitesi, Chrysin, İnflamasyon, İzoniazid, Oksidatif stres

ABSTRACT

Tuberculosis has become a serious public health problem with approximately 10 million new cases and 1.3 million deaths worldwide. Isoniazid (INH) is among the most important anti-tuberculosis agents

commonly prescribed. However, its clinical use is limited due to serious side effects associated with its toxic effects, particularly dose adjustment. The development of intestinal tissue protective agents is important to improve the clinical utility of these antibiotics and reduce their serious side effects. Antioxidants are becoming increasingly popular in research because they prevent oxidative stress-related damage. Chrysin (CR) is a natural dietary phytochemical abundant in honey, bee propolis, and many plant extracts. CR has many pharmacological and biological activities. Among these activities, it has antioxidant, anti-inflammatory, anti-apoptotic, anti-hypertensive, and anti-diabetic properties. The aim of the present study was to investigate the potential protective effect of CR against INH-induced intestinal toxicity in male rats. 35 rats were randomly divided into 5 groups: control, INH, CR, INH+CR25, and INHCR50. Rats were treated with INH alone (400 mg/kg body weight) or CR (25 and 50 mg/kg) by oral gavage for 7 consecutive days. After treatment, intestinal tissues were removed, cleaned, and homogenized with KCl (1.15%) using a homogenizer. After the homogenates were centrifuged, the supernatants were taken and stored at -80oC for biochemical analysis. To analyze oxidative stress, malondialdehyde (MDA) level, an indicator of lipid peroxidation was analyzed. In addition, changes in antioxidant biomarkers such as superoxide dismutase (SOD), catalase (CAT), glutathione peroxidase (GPx) activity, and glutathione (GSH) level were analyzed. For inflammation level analysis, nuclear factor kappa B (NF-κB), tumor necrosis factor-α (TNF-α), and Interleukin 1ß (IL-1ß) levels were analyzed. A one-way ANOVA/DUNCAN test was used for statistical analysis of the data. INH treatment significantly increased MDA levels ($p<0.05$) and increased oxidative stress by decreasing SOD, CAT, GPx activities, and GSH levels ($p<0.05$). INH treatment also increased the level of inflammation by increasing NF-κB, TNF-α, and IL-1ß levels ($p<0.05$). Co-treatment with CR decreased oxidative stress by decreasing MDA levels and increasing antioxidant capacity. In addition, it decreased inflammation by decreasing the level of inflammation markers. In conclusion, CR was shown to have a protective effect on INH-induced intestinal toxicity by reducing oxidative stress and inflammation.

Keywords: Intestinal toxicity, Chrysin, Inflammation, Isoniazid, Oxidative stress

HİPERAKUZİ SEMPTOMLARI ENVANTERİNİN TÜRKÇE GEÇERLİK VE GÜVENİRLİK ÇALIŞMASI

TURKISH VALIDITY AND RELIABILITY STUDY OF THE INVENTORY OF HYPERACUSIS SYMPTOMS

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ÖZET

Amaç: Bu çalışmada, hiperakuzili hastaların tanısını koymaya yardımcı Hiperakuzi Semptomları Envanteri (HSE)'nin Türkçe geçerlik ve güvenirliğinin yapılması ve hiperakuzi şiddeti ile tinnitus engellilik, anksiyete ve depresyon düzeyi arasındaki ilişkinin incelenmesi amaçlanmıştır.

Gereç ve Yöntem: Ege Üniversitesi Tıbbi Araştırmalar Etik Kurulu'ndan (06.05.2021 tarih ve 21-5T/62 karar no'lu) çalışma onayı alınmıştır. Çalışmada, hiperakuzi şikâyetine sahip ve yaş ortalaması 35,68 ± 15,52 olan 318 katılımcı (197'si kadın, 121'i erkek) yer almıştır. Katılımcılara Olgu Rapor Formu, Hiperakuzi Semptomları Envanteri (HSE), Khalfa Hiperakuzi Ölçeği (KHÖ), Hastane Anksiyete ve Depresyon Ölçeği (HAD) ve Tinnitus Engeli Ölçeği (TEÖ) uygulanmıştır. HSE'nin dil, kapsam, yapı geçerlik ve güvenirlik aşamaları yapılarak ölçeğin son hali verilmiştir.

Bulgular: Kapsam geçerliğinde uzmanların maddelere verdiği puanlar arasında uyum olduğu görülmüştür (Kendal W=0,081; p=0,722>0.05). Yapı geçerliği aşamasında açıklayıcı faktör analizi ile 25 maddelik 5 boyutlu HSE elde edilmiştir. Doğrulayıcı Faktör Analizi uyum indeksi değerleri $\chi 2$ 889,387, $\chi 2$/sd oranı 3,515, IFI 0,904, NFI 0,910, GFI 0,914, CFI 0,917 ve RMSEA 0,080 bulunmuştur. Hesaplanan $\chi 2$/sd oranı 5'ten küçük olması modelin istatistiksel olarak anlamlı olduğunu göstermektedir. IFI, NFI, GFI, CFI değerlerinde de model uyumu görülmektedir (IFI, NFI, GFI, CFI>0,90). RMSEA değerinin 0,080'e eşit olması modelin örneklem ile iyi bir şekilde temsil edildiğini göstermektedir. Güvenirlik analizinde, HSE'nin Cronbach alfa (α) iç tutarlılık katsayısı 0,97 bulunmuştur. HSE ve alt boyutları için yapılan test-tekrar test sonuçlarında yapılan ilk ve son ölçümler arasında istatistiksel olarak anlamlı farklılık saptanmamıştır (p>0.05). HSE puanı ile KHÖ puanı arasında pozitif yönde yüksek seviyede, HSE puanı ile HAD-A puanı arasında pozitif yönde orta seviyede, HSE puanı ile HAD-D puanı arasında ve HSE puanı ile TEÖ puanı arasında pozitif yönde düşük seviyede istatistiksel olarak anlamlı korelasyon saptanmıştır (p<0,05).

Sonuç: Türkçeye uyarlanan HSE'nin geçerli ve güvenilir bir ölçek olduğu sonucuna varılmıştır. Hiperakuzi şiddeti ile tinnitus engellilik, anksiyete ve depresyon düzeyi arasında ilişki saptanmıştır.

Anahtar kelimeler: hiperakuzi; geçerlik; güvenirlik; tinnitus; anksiyete; depresyon

ABSTRACT

Objective: In this study, it was aimed to make the Turkish validity and reliability of the Hyperacusis Symptoms Inventory (HSI), which helps to diagnose patients with hyperacusis, and to examine the relationship between hyperacusis severity and tinnitus disability, anxiety and depression levels.

Materials and Methods: The study approval was obtained from Ege University Medical Research Ethics Committee (dated 06.05.2021 and decision number 21-5T/62). The study included 318 participants (197 female, 121 male) with a complaint of hyperacusis and a mean age of 35,68 ± 15,52 years. Case Report Form, Hyperacusis Symptoms Inventory (HSI), Khalfa Hyperacusis Questionnaire (KHQ), Hospital Anxiety and Depression Scale (HADS), and Tinnitus Handicap Inventory (THI) were administered to the participants. The language, content, construct validity and reliability stages of the HSI were completed and the scale was finalized.

Results: In content validity, it was observed that there was a concordance between the scores given by the experts to the items (Kendal W=0.081; p=0.722>0.05). At the stage of construct validity, a 25-item 5-dimensional HSI was obtained with explanatory factor analysis. Confirmatory Factor Analysis fit index values were found as $\chi 2$ 889.387, $\chi 2$/sd ratio 3.515, IFI 0.904, NFI 0.910, GFI 0.914, CFI 0.917 and RMSEA 0.080. The calculated $\chi 2$/sd ratio is less than 5, indicating that the model is statistically significant. Model fit is also seen in GFI, NFI, IFI and CFI values (IFI, NFI, GFI, CFI>0.90). The RMSEA value being equal to 0.080 indicates that the model is well represented by the sample. In the reliability analysis, the Cronbach's alpha (α) internal consistency coefficient of the HSI was found to be 0.97. No statistically significant difference was found between the first and last measurements in the test-retest results for HSI and its sub-dimensions (p>0.05). There was a high level of positive correlation between HSI score and KHQ score, a moderately positive correlation between HSI score and HADS-A score, and a low level of positive correlation between both HSI score and HADS-D score and between HSI score and THI score (p<0.05).

Conclusion: It was concluded that the HSI, which was adapted into Turkish, is a valid and reliable scale. A relationship was found between hyperacusis severity and tinnitus disability, anxiety and depression levels.

Keywords: hyperacusis; validity; reliability; tinnitus; anxiety; depression

THE ROLE OF MAGNETIC RESONANCE DEFECOGRAPHY IN THE DIAGNOSIS OF PELVIC ORGAN PROLAPSE: A CASE REPORT

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ABSTRACT

Pelvic organ prolapse refers to the abnormal descent and herniation of pelvic organs due to the weakening of pelvic support structures such as the pelvic diaphragm and endopelvic fascia. This group includes cystocele, uterine prolapse, vaginal vault prolapse, rectal prolapse, rectocele, and enterocele. Conventional defecography, transperineal and transrectal ultrasonography, and computed tomography can be used to evaluate pelvic floor pathologies. Magnetic resonance imaging (MRI) is preferred due to its ability to visualize soft tissues and lack of ionizing radiation. In magnetic resonance defecography, the patient is asked to defecate while the rectum and, if necessary, other pelvic organs are filled with a contrast agent. This allows imaging of both the resting state and the squeezing, straining, and rectal evacuation phases. In our case, a 54-year-old female patient presented with a palpable mass in the anal region. The preliminary diagnosis is rectal prolapse. Magnetic resonance defecography revealed no significant prolapse in the resting state and the squeezing phase. However, during straining and rectal evacuation, advanced prolapse extending beyond the imaging field was observed in the rectum, as well as third-degree prolapse in the anterior and middle compartments. This case presentation aims to demonstrate an advanced stage pelvic organ prolapse affecting all three compartments and emphasize the success of magnetic resonance defecography in visualizing the changing positions of the pelvic floor and organs during defecation.

Keywords: pelvic organ prolapse, magnetic resonance defecography, cystocele, uterine prolapse, rectal prolapse

Salvia officinalis UÇUCU YAĞININ KİMYASAL BİLEŞİMİ, ANTİMİKROBİYAL VE ANTİOKSİDAN ÖZELLİKLERİNİN BELİRLENMESİ

DETERMINATION OF CHEMICAL COMPOSITION, ANTIMICROBIAL AND ANTIOXIDANT PROPERTIES OF *Salvia officinalis* ESSENTIAL OIL

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ÖZET

Son yıllarda hastalıkları tedavi etmek için farklı şifalı bitkiler ve bunların etken maddeleri kullanılmaktadır. Doğal tıbbın uçucu yağları erişilebilir ve uygun fiyatlıdır, bu da onları semptomatik tedavi için mükemmel seçenekler haline getirir. Genel olarak uçucu yağlar olarak adlandırılan uçucu yağların çoğu aromatik bir kokuya sahiptir. Doğal tıpta kullanılan esansiyel yağlar, başta solunum sistemi, antiinflamatuar, antioksidan, kanser ve antimikrobiyal etkileri olmak üzere heyecan verici farmakolojik özelliklere sahip önemli etken maddelerdir. Yapılan çalışmada; *Salvia officinalis*'dan clevenger yöntemiyle elde edilen yağın, GC-MS/Head-Space analizi ile uçucu yağ bileşenleri, agar kuyu difüzyon testi ile bazı gram negatif/pozitif patojen mikroorganizmalar ve laktik asit bakterileri üzerine antimikrobiyal etkisi ve antioksidan kapasitesinin (DPPH, Metal Şelatlama, FRAP) değerlendirilmesi amaçlanmıştır. Elde edilen verilere göre, *Salvia officinalis*'in elde edilen uçucu yağ bileşenlerini oluşturan önemli bileşenler sırasıyla α-Tuyon (%11.82), β-Tuyon (%16.09), Linalool (%0.50), Lavandulol (%5.35), Limonene (%1.2), Eucalyptol (%17.43) olarak tespit edildi. *Lactobacillus plantarum* (zon 13mm), *Bacillus subtilus* B354 ve *E.coli* RSSK 09036 (zon 12 mm), MRSA (Metisiline dirençli *Staph. aureus*) ve *Campliobacter jejuni* ATCC33560 (zon 11 mm), *Staphylococcus aureus* ATCC 29213 ve *Salmonella Poona* RM 2350 (zon 9 mm) antimikrobiyal etki gösterdi. Ancak *E.coli* k-2 ve *Salmonella parathypi* A NCTC13 bakterilerinde herhangi bir etki göstermedi. Aynı zamanda yapılan DPPH, FRAP ve metal şelatlama analizlerinde sırasıyla %62.2, %53.79 ve %22.27 oranında antioksidan belirlenmiştir. Sonuç olarak, *Salvia officinalis* yağının zararlı mikroorganizmalara antimikrobiyal etki göstermesi, uçucu yağ bileşiminin önemli etken maddelerinin head-space ile tespiti ve antioksidan etkisi ile endüstriyel ve geleneksel koruyucu olarak kimyasal koruyuculara alternatif olabileceği belirlenmiş olup; aynı zamanda tamamlayıcı tıp ve semptom tedavilerinde kullanımının hastalıklara karşı koruyucu önemi tespit edilmiş olup yapılacak *in vivo* çalışmalara basamak teşkil edebilir.

Anahtar kelimeler: *Salvia officinalis*, uçucu yağ bileşenleri, antioksidan kapasite, antimikrobiyal aktivite

ABSTRACT

Recently, different medicinal plants and their active ingredients have been used to treat diseases. Essential oils of natural medicine are accessible and affordable, making them excellent options for symptomatic treatment. Essential oils used in natural medicine are important active substances with exciting pharmacological properties, especially respiratory system, anti-inflammatory, antioxidant, cancer and antimicrobial effects. In the study; Antimicrobial effect and antioxidant capacity (DPPH, Metal Chelating, FRAP) of the oil obtained from Salvia officinalis by clevenger method on essential oil components by GC-MS Head Space analysis, some gram negative/positive pathogenic microorganisms and lactic acid bacteria by agar well diffusion test.) is intended to be evaluated. According to the data obtained, the important components that make up the essential oil components of *Salvia officinalis*, α-Thujone (11.82%), β- Thujone (16.09%), Linalool (0.50%), Lavandulol (5.35%), Limonene (1.2%), Eucalyptol (17.43%), respectively. *Lactobacillus plantarum* (zone 13mm), *Bacillus subtilus* B354 and

E.coli RSSK 09036 (zone 12 mm), MRSA (Methicillin resistant *Staph. aureus*) and *Campliobacter jejuni* ATCC33560 (zone 11 mm), *Staphylococcus aureus* ATCC 29213 and *Salmonella poona* RM2350 (zone 9 mm) showed important antimicrobial effect. However, it was determined that it did not show any effect on *E.coli* k-2 and *Salmonella parathypi* A NCTC13 bacteria. Moreover, antioxidant capacity tests of essential oil, DPPH, FRAP and metal chelation analyzes revealed 62.2%, 53.79% and 22.27%, respectively. As a result, it has been determined that *Salvia officinalis* oil can be an alternative to chemical preservatives as an industrial and traditional preservative with its antimicrobial effect on harmful microorganisms, detection of important active ingredients of the essential oil composition by head-space and antioxidant effect; At the same time, the protective importance of its use in complementary medicine and symptom treatments against diseases has been determined, and it may be a stepping stone for *in vivo* studies.

Keywords: *Salvia officinalis*, volatile oil components, antioxidant capacity, antimicrobial activity

TRANSFEROSOMES: A PROMISING NANOCAPSULATION TECHNIQUE FOR TRANSDERMAL DRUG DELIVERY

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ABSTRACT

Transfersomes, a novel nanoencapsulation technique, hold great promise for transdermal drug delivery. This abstract provides an overview of the advancements in the transfer of some technology and its potential applications in enhancing drug permeation through the skin. Transdermal drug delivery offers numerous advantages, including non-invasiveness, improved patient compliance, and avoidance of gastrointestinal degradation. However, the stratum corneum, the outermost layer of the skin, poses a significant barrier to drug penetration. Traditional liposomes, although effective, face limitations due to their large size and reduced flexibility, restricting their ability to efficiently permeate the skin. Transfersomes, on the other hand, are highly deformable vesicles composed of phospholipids and edge activators. Their unique structure enables them to squeeze through the narrow intercellular spaces of the stratum corneum, resulting in improved drug delivery. Additionally, transfersomes can accommodate both hydrophilic and lipophilic drugs, expanding their applicability across a wide range of therapeutic agents. The formulation of transfersomes involves various techniques such as thin-film hydration, solvent injection, and lipid film hydration. These methods allow for precise control over the size, charge, and composition of the transfersomes, optimizing their drug encapsulation efficiency and stability. Furthermore, transfersomes offer the potential for targeted drug delivery through the incorporation of ligands on their surface, enabling specific interaction with receptors on skin cells. This feature opens up possibilities for personalized medicine and the treatment of localized skin disorders. Transfersomes have demonstrated considerable success in preclinical and clinical studies, showcasing their ability to enhance drug permeation and achieve therapeutically relevant concentrations in systemic circulation. They have been utilized for the delivery of a diverse range of drugs, including analgesics, anti-inflammatory agents, anti-cancer drugs, and hormones.

ROBOTIC PHARMACY SYSTEM IMPLEMENTATION

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ABSTRACT

Robotic pharmacy systems have numerous benefits, especially to health providers. The system definitely has an impact on the workers and the general performance of the organization. Citing some of the key benefits of the robotic pharmacy system, one of the most important is that it reduces the need for technical labor significantly. With such technology, health providers do not require pharmacists to give prescriptions manually. In this, there is a need for deliberate action to reduce the chances of errors. Robotic pharmacy systems have proven to be most effective in eradicating errors as they operate with a 99.9% medication filling accuracy. This reduces the chances of patients getting expired medication hence improving health services. It also lowers the cost of expired medication by 54% making it very effective in the health profession. Robotic systems have a self-check mechanism to identify when the system is running out of stock. Through periodic reports, the machine is able to notify the management when the stock needs to be refilled hence chances of patients missing their medications are lowered. To add to the above advantages, they also use an essential bar-code-based medication procedure. This improves the safety of the medication, improves the productiveness of the pharmacy, and most importantly lowers the cost of operation. A number of hospital pharmacies can share one robotic system. Other than reducing the cost of operation, this also makes it easier for patients to access pharmaceutical services. The robotic systems have major benefits to pharmacists and they should be implemented in every health institution. Robotic systems have solved the issue of space since they are mostly stand-alone cabinets that require very little space to set up. The system's design allows it to perform numerous functions to cater to the normal daily pharmacy dispensing needs. This has a great impact on a pharmacy's productivity as well as the quality of life.

Keywords: Reduces technical labor, Self-check mechanism, Bar-code-based medication, and Stand-alone cabinets.

EFFICIENCIES OF THE COAGULATION-FLOCCULATION PROCESS IN THE REMOVAL OF TURBIDITY FROM HOSPITAL WASTEWATER

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ABSTRACT

Despite the growing concern over hospital waste management, scant attention has been paid to wastewater generated from hospitals, medical research laboratories and health care institutions. Hospitals consume a significant amount of water in a day, ranging from 400 to 1200 L.day−1.bed−1 and generate equally significant amounts of wastewater loaded with micro- pollutants, heavy metals, toxic chemicals and radioactive elements.

Hospital wastes could be dangerous to the ecological balance and public health. They end up in surface waters where they can influence the aquatic ecosystem and interfere with the food chain. So human health is the main consequence.

The purpose of this study is to apply the physico-chemical hospital wastewater treatment by coagulation-flocculation using aluminum sulfate as a chemical coagulant. This method is one of those appropriate treatment techniques to reduce water pollution. So, several JAR test attempts will be performed to define the optimal conditions that allow minimizing the suspended solids. Two coagulation-flocculation parameters were varied in this study which are the concentration of coagulant (2 -20 mg/l) and initial concentration of pollutant using several dilutions (5 – 100 times)

Results show that the coagulation-flocculation optimum is for a coagulant concentration of 10 mg/l where the turbidity removal efficiency reaches 96 %. For the initial concentration of pollutant effect we notice that by increasing the number of dilution of wastewater, the turbidity removal efficiency increase.

Keywords: hospital wastewater, coagulation-flocculation, aluminum sulfate, turbidity.

SANTRAL SİNİR SİSTEMİ HEMATOLOJİK MALİGNİTELERİN KLİNİKOPATOLOJİK BULGULARININ DEĞERLENDİRİLMESİ

EVALUATION OF CLINICOPATHOLOGICAL FINDINGS OF CENTRAL NERVOUS SYSTEM HEMATOLOGICAL MALIGNITIES

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ABSTRACT

Central nervous system (CNS) hematological malignancies can be primary, as well as secondary with systemic involvement. The most common tumor type among primary CNS lymphomas is diffuse large B-cell lymphoma (DLBCL). Primary and secondary involvement of T-cell and NK/T-cell lymphomas in the CNS, as well as low-grade B-cell lymphomas, is extremely rare. CNS involvement of B-cell acute lymphoblastic leukemia (B-ALL) and acute myeloblastic leukemia (AML) is common. Between 2001 and 2023, 59 cases diagnosed hematological malignancies in the brain surgery materials that came to our Pamukkale University Faculty of Medicine Pathology Laboratory were included in the study. The patients age, gender, clinical history, diagnoses made on biopsy materials, tumor localizations, and histological types of the tumor were retrospectively reviewed. Between the ages of 21 and 81 (mean age: 58), 30 (51%) cases were male and 29 (49%) cases were female. The most common symptoms in the cases were headache (44%), loss of strength (22%), and balance disorder (20%). In 11 (19%) of the cases, the tumor was observed in multiple localizations. The most common localizations were the cerebral lobe seen in 46 (77%) cases. Histopathologically, 56 (94%) cases were diagnosed as DLBCL, 1 (2%) case was Nodular Sclerosing type Hodgkin's Lymphoma, 1 (2%) case was B-ALL, 1 (2%) case was AML. No case of T Cell Lymphoma was observed. In the previous biopsies of two cases diagnosed with B-ALL and AML, there was a diagnosis of leukemia in the bone marrow. Systemic involvement was observed in 9 (15%) of DLBCL cases at the time of diagnosis. Consistent with the literature in our CNS lymphoma cases, the most common localization was the cerebral lobes; however, we found the thalamus and corpus callosum localizations and the number of tumor cases in multiple localizations less frequently than in the literature. We found the most common primary lymphoma as DLBCL, which is consistent with the literature. We did not have T and NK/T-cell lymphoma and low-grade lymphoma in our archive. Although CNS involvement is common in B-ALL and AML cases, our case number was low. We found it worth presenting this study to transfer our experience in CNS lymphomas.

Keywords: Primary CNS lymphoma, B-cell lymphoma, T-cell lymphoma, B-ALL, AML

ÖZET

Santral sinir sistemi (SSS) hematolojik maligniteleri primer olabileceği gibi sistemik tutulum ile sekonder olarak da görülebilir. Primer SSS lenfomaları içerisinde görülen en yaygın tümör tipi diffüz büyük B hücreli lenfoma (DBBHL) dır. Düşük dereceli B hücreli lenfomaların yanı sıra T-hücreli ve

NK/T-hücreli lenfomaların SSS'de primer ve sekonder tutulumu son derece nadirdir. B hücreli akut lenfoblastik lösemi (B-ALL) ve akut myeloblastik lösemi (AML)'nin SSS tutulumu sık görülmektedir. Çalışmaya 2001-2023 yılları arasında Pamukkale Üniversitesi Tıp Fakültesi Patoloji Laboratuvarımıza gelen beyin ameliyat materyallerinde hematolojik malignensi tanısı almış 59 olgu çalışmaya dahil edildi. Hastaların yaşı, cinsiyeti, klinik öyküsü, biyopsi materyallerine koyduğumuz tanılar, tümörün lokalizasyonları, tümörün histolojik tipleri retrospektif olarak incelendi. 21-81 yaşlarında (ortalama yaş:58) olguların 30 (%51)'u erkek, 29 (%49)'u kadındır. Olgularda en sık görülen semptomlar baş ağrısı (%44), güç kaybı (%22), denge bozukluğu (%20)dur. Olguların 11 (%19)'inde tümör multiple lokalizasyonda izlenmiştir. En sık lokalizasyonlar 46 (%77) olguda görülen serebral lobdu. Histopatolojik olarak olguların 56 (%94)'sı DBBHL, 1 (%2)'i Nodüler Sklerozan tip Hodgkın Lenfoma, 1 (%2)'i B-ALL, 1 (%2)'i AML tanısı aldı. T Hücreli Lenfoma olgusu izlenmedi. B-ALL ve AML tanısı alan iki olgunun önceki biyopsilerinde kemik iliğinde lösemi tanısı mevcuttur. DBBHL olgularının 9 (%15)'unda tanı sırasında sistemik tutulum izlenmiştir. SSS lenfoma olgularımızda literatürle uyumlu olarak en sık lokalizasyon serebral loblardı; ancak talamus ve korpus kallozum lokalizasyonlarını ve multiple lokalizasyonda yer alan tümör olgu sayısını literatüre göre daha az sıklıkta saptandık. En sık primer lenfomayı DBBHL olarak literatürle uyumlu tespit ettik. Oldukça nadir görülen T ve NK/T-hücreli lenfoma ve düşük dereceli lenfoma olgusu arşivimizde izlemedik. B-ALL ve AML olgularında SSS tutulumu sık olmasına rağmen olgu sayımız azdı. Bu çalışmayı SSS lenfomalarında deneyimimizi aktarmak için sunmaya değer bulduk.

Anahtar kelimeler: Primer santral sinir sistemi lenfoması, B- hücreli lenfoma, T- hücreli lenfoma, B-ALL, AML

KOLON ADENOKARSİNOMUNUN KLİNİKOPATOLOJİK ÖZELLİKLERİNİN DEĞERLENDİRİLMESİ

EVALUATION OF CLINICOPATHOLOGICAL FEATURES OF COLON ADENOCARCINOMA

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ÖZET

Amaç:

Hastanemizde tanı alan kolon adenokarsinomu olgularının klinikopatolojik özelliklerini güncel bilgilerle karşılaştırmayı amaçladık.

Yöntemler:

Hastanemizde 2010-2020 yılları arasında tanı almış 165 kolon adenokarsinomu vakasına ait preparatlar arşivden çıkarılarak retrospektif olarak tarandı. Olguların klinikopatolojik özellikleri patoloji raporlarından ve hastane bilgi sisteminden alınarak analiz edildi.

Bulgular:

Çalışmaya dahil edilen olguların %59,3'ü erkek, %40,7'ı kadındır. Genel yaş ortalaması 67,7±1 yıl saptanmıştır. Tümör lokalizasyonu olarak en sık sigmoid kolon, en az transvers kolon ve rektum yerleşimli tümörler saptandı. Histopatolojik tip olarak en sık adenokarsinom (%87,3) izlendi. Tümör çapı ortalama çap 5,7±0,2 cm'dir. Rezeksiyon materyallerinden ortalama lenf nodu disseksiyon sayısı 15,8±0,67'dir. Metastatik lenf nodu sayı ortalaması 2,4±0,53 olarak saptandı. Metastaz en sık karaciğere, ikinci sıklıkta peritona saptandı. Evre dağılımı, en sık evre 2 (%45,5) saptandı.

Sonuç:

Çalışmamızda çoğu bulgumuz güncel literatür bilgileriyle uyumlu saptanmıştır. Literatürden farklı olarak ortalama tanı yaşı çalışmamızda artmış olarak saptanmıştır. Rektum kanseri oranı literatüre göre düşük oranda saptanmıştır. Bu bulgularımız kolonoskopik görüntüleme artışı ve polipektomi ile erken tedavinin etkisini düşündürmüştür.

Anahtar kelimeler: Kolon, adenokarsinom, klinikopatolojik özellikler.

ABSTRACT

Objective:

We aimed to compare the clinicopathological features of colon adenocarcinoma cases diagnosed in our hospital with current literature.

Methods:

The preparations of 165 colon adenocarcinoma cases diagnosed in our hospital between 2010 and 2020 were retrieved from the archive and scanned retrospectively. Clinicopathological features of the cases were analyzed from the pathology reports and hospital information system.

Results:

59.3% of the cases included in the study were male and 40.7% were female. The overall mean age was 67.7±1 years. Tumors localized in the sigmoid colon most frequently, transverse colon and rectum at least were determined as tumor localization. Adenocarcinoma (87.3%) was the most common histopathological type. The mean diameter of the tumor is 5.7±0.2 cm. The mean number of lymph node dissection of the resection materials was 15.8±0.67. The mean number of metastatic lymph nodes was found to be 2.4±0.53. Metastasis was most frequently detected to the liver and secondly to the peritoneum. Stage distribution was the most common stage 2 (45.5%).

Conclusion:

In our study, most of our findings were found to be compatible with current literature information. In contrast to the literature, the mean age at diagnosis was found to be increased in our study. The rate of rectal cancer was found to be lower than in the literature. As a result of these findings, the increase in the prevalence of colonoscopic imaging and early treatment with polypectomy were thought to be effective.

Keywords: Colon, adenocarcinoma, clinicopathological features.

DİŞ HEKİMLİĞİNDE BOTOKS UYGULAMALARI

BOTOX APPLICATIONS IN DENTISTRY

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ÖZET

Günümüzde kozmetik ve tedavi amacıyla kullanılan botoks, anaerob bakteri olan clostridium botilinum tarafından üretilen bir nörotoksindir. Toksin kaslara enjekte edildiğinde sinir hücrelerine etki ederek kısmi ve geçici süre ile paraliz oluşturmakta ve bu şekilde kasın fazla kasılmasını önlemektedir. Botulinum toksininin 7 serotipi bulunmaktadır. En çok kullanılan tipi toksin A"dır. Botoks, botilinum toksininin bilinen ticari ismi olup toksinin farklı şekildeki preparatlarından biridir. Botoks, konservatif, ağrısız ve hızlı bir tedavidir. Botoks uygulamaları diş hekimliğinde temporomandibular eklem bozuklukları, bruksizm, masseter hipertrofisi, dişeti gülümsemesi tedavilerinde kullanılmaktadır. Bu derleme çalışmasında botoksun diş hekimliğinde kullanımının incelenmesi amaçlanmıştır.

Anahtar kelimeler: Botulinum toksini, botoks, diş hekimliği, botulinum toksin A

ABSTRACT

Botox, which is currently used for cosmetic and therapeutic purposes, is a neurotoxin produced by clostridium botylinum, an anaerobic bacterium. When November is injected into muscles, the toxin acts on nerve cells, causing partial and temporary paralysis and thus preventing excessive muscle contraction. novemberjust novemberjust novemberjust novemberjust novemberjust novemberjust Novembers. There are 7 serotypes of botulinum toxin. The most commonly used type is toxin A". Botox is the well-known trade name of the botylinum toxin and is one of the preparations of the toxin in different forms. Botox is a conservative, painless and fast treatment. Botox applications are used in dentistry for the treatment of temporomandibular joint disorders, bruxism, masseter hypertrophy, gingival smile. In this review study, it was aimed to investigate the use of botox in dentistry.

Keywords: Botulinum toxin, botox, dentistry, botulinum toxin A

IN VITRO CYTOTOXIC EFFECTS OF NANOPARTICLES OBTAINED FROM *CLADONIA FURCATA* LICHEN BY GREEN SYNTHESIS, ON COLON CELL LINES

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ABSTRACT

Green synthesis is a method used as an alternative to physical and chemical synthesis and is considered as an important method in the field of nano material production. *Cladonia furcata* is a species of cup lichen in the family Cladoniaceae. It has an intermediate to tolerant air pollution sensitivity. Extracts of this species significantly reduced leukaemia cells *in vitro* and may have possible value in cancer therapy. Cytotoxicity refers to the rate of toxic effects of active substances on cells. Cytotoxic agents remain the treatment of choice for many types of cancer. In cytotoxicity assays to evaluate the potential of anticancer compounds, the lowest cytotoxic concentration is sought. Therefore, in this study, nanoparticles were synthesised from *Cladonia furcata* by green synthesis and their possible cytotoxic effect using MTT (3-(4,5-dimethylthiazol-2-YL)-2,5-diphenyltetrazolium bromide) assay in human colon cancer (DLD-1) and normal colon epithelium (CCD-18Co) cell lines. For this purpose, cells were grown to confluence at 37°C under 5% CO_2 in flasks with RPMI-1640 (Roswell Park Memorial Institute) (DLD-1), and EMEM (Eagle's Minimum Essential Medium) (CCD-18Co) including 10% fetal bovine serum. Different concentrations of nanoparticles (3.91, 7.81, 15.63, 31.25, 62.50, 125, 250 and 500 µg/mL) treated with both cell lines for 24 hours. Nanoparticles were dispersed in water. Mitomycin C (MMC) was used as a positive control for both cell lines. Cell viability was measured using the following formula: Viability (%) = mean experimental (optical density) OD value / mean control OD value) x 100%. The percent of cell viability values were between 86.61-102.51% for DLD-1 cells and 74.28-94.44% for CCD-18Co cells. The results showed that nanoparticles produced from *Cladonia furcata* have no ability to induce cytotoxicity in the colon cancer and normal colon epithelium cells. These nanoparticles did not cause any significant change in cell viability values compared to the control. However, these results should be supported by further studies in different cell lines.

Keywords: *Cladonia furcata*, Nanoparticles, MTT assay, Cytotoxicity, Cell line.

GOLD NANOPARTICLES APPLICATION IN CANCER CHEMOTHERAPY

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ABSTRACT

Gold nanoparticles have emerged as a promising tool in cancer therapy due to their unique properties. These tiny particles, which range in size from 1-100 nanometers, have the ability to accumulate in tumors due to their small size and the enhanced permeability and retention effect (EPR) that tumors exhibit. This accumulation enables the targeted delivery of therapeutic agents to cancer cells while sparing healthy cells. Here are a few ways gold nanoparticles are being used in cancer therapy: Drug delivery: Gold nanoparticles can be used to deliver chemotherapy drugs directly to cancer cells. This approach can improve the efficacy of the drugs while reducing their toxic side effects on healthy cells. Photothermal therapy: Gold nanoparticles can be stimulated by near-infrared (NIR) light to generate heat, which can be used to destroy cancer cells. This approach, known as photothermal therapy, has been shown to be effective in killing cancer cells both in vitro and in vivo. Radiotherapy enhancement: Gold nanoparticles can be used to enhance the effectiveness of radiotherapy by increasing the dose of radiation delivered to cancer cells. This approach has been shown to be effective in killing cancer cells while sparing healthy cells. Imaging: Gold nanoparticles can be used as imaging agents to improve the detection of tumors. They can be functionalized with targeting molecules to specifically bind to cancer cells and allow for more accurate imaging. In summary, gold nanoparticles have shown great potential in cancer therapy due to their unique properties, including their small size, ability to accumulate in tumors, and ease of functionalization with targeting molecules. Ongoing research in this area is aimed at optimizing the use of gold nanoparticles to improve cancer diagnosis and treatment.

Keywords: Near-infrared, cancer cells, Imaging, Radiotherapy enhancement, Photothermal therapy.

CONTENT ANALYSIS OF IMPACT OF PEER MENTORING ON ACADEMIC DEVELOPMENT IN UNIVERSITY EDUCATION

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ABSTRACT

Peer mentoring is a form of learning in which a person with more experience in a particular field such as occupation, socio-economic status, age, etc. can transfer knowledge/skills/experience to the less experienced person in the same field. There are mutual benefits in the interaction through peer mentoring where peers constitute some of the most effective help and support in one's academic life. Students sharing similar experiences believe that they can understand and help each other better. Peer groups are seen as an important factor in the academic development of students who start to be independent from their families in university life. Academic development ensures that students are equipped for their professional life and shape their future. Due to the impact of Covid-19 pandemic on the entire world, the decline in the academic development of students and their anxiety for the future have increased. Similar situations were observed in the students at the Faculty of Fisheries. It has been determined by the Fisheries academicians that the students need special support and guidance. In this study, the impact of peer mentoring on academic development in university was examined through content analysis method which is an in-depth analyses of related academic publications according to certain criteria; throgh which the data are examined in detail and the publications are summarised to contribute to the literature. In this study, a total of 52 national and international articles in the related databases of Google Academics and Web of Science between 2013 and 2023 were scanned and the methods, publication dates, sample distributions and results thereof were presented. The study discusses the applicability of peer mentoring and suggests that peer mentoring increases the academic success of university students while increasing the students' educational and leadership skills as well as their adaptation to academic life. Peer Mentoring, which started to be implemented in different universities and faculties, is believed to be a worthy contribution to the academic development of the students in the Faculty of Fisheries.

Keywords: University life, peer mentoring, fisheries, academic development.

KAHKAHA YOGASININ FİZYOLOJİK VE PSİKOLOJİK ETKİLERİ VE HEMŞİRELİK UYGULAMALARINDAKİ YERİ

PHYSIOLOGICAL AND PSYCHOLOGICAL EFFECTS OF LAUGHTER YOGA AND ITS PLACE IN NURSING PRACTICES

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ÖZET

Kahkaha yogası, kahkahayı yoga ve nefes teknikleriyle birleştiren benzersiz bir egzersiz ve farkındalık uygulamasıdır. Kahkaha ve derin nefes alma kombinasyonunun vücuda ve beyne giden oksijeni arttırdığına, bunun sonucunda enerjinin artmasına ve iyi olma hissine yol açtığına inanılır. Bir kahkaha yoga seansı sırasında, katılımcılar şakalara veya mizaha güvenmeden uzun süreli gönüllü kahkahalar atmaya teşvik edilir. Ancak kahkaha yogasının ardındaki kavram, vücudun gerçek ve sahte kahkahayı ayırt edememesidir, daha çok kahkaha ve şakacı bir zihniyet geliştirmekle ilgilidir. Yani gerçek kahkaha yerine simüle edilmiş kahkaha bile benzer fizyolojik ve psikolojik faydalar sağlayabilir.

Bir kahkaha yoga seansında, katılımcılar, eğitimli bir kahkaha yogası eğitmeni tarafından yönetilen, genellikle bir grup ortamında, bir dizi kahkaha egzersizi yaparlar. Kahkaha tipik olarak göz teması, alkışlama ve harekete dayalı egzersizler gibi çeşitli eğlenceli aktivitelerle başlatılır. Bu aktiviteler, çocuksu oyunculuğu teşvik etmek ve engellemeleri kırmaya yardımcı olmak için tasarlanmıştır. Kahkaha yoga seansları, 15 dakikalık kısa seanslardan bir saat veya daha uzun seanslara kadar değişebilir.

Kahkaha yogasının savunucuları, düzenli uygulamanın stres azaltma, iyileştirilmiş ruh hali, gelişmiş bağışıklık fonksiyonu, artan oksijen alımı ve gelişmiş sosyal bağlantılar dahil olmak üzere çeşitli sağlık yararları olabileceğini iddia ediyor. Ayrıca duygusal salıvermeyi teşvik ettiğine ve bireylerin acı ve zor duygularla baş etmelerine yardımcı olduğuna inanılıyor.

Kahkaha yogasının geleneksel tıbbi tedavilerin veya terapilerin yerini almaması gerektiğini, bunun yerine genel refahı artırmak için tamamlayıcı bir yaklaşım olarak kullanılması gerektiğini not etmek önemlidir. Hemşireler, kahkaha yogası pozitif ve iyileştirici bir ortamı teşvik etmek için hastalara kahkaha yoga seansları düzenleyerek hastaların yaşadıkları olumsuz duygularla baş etmelerini kolaylaştırabilir. Bu derlemenin amacı kahkaha yogasının hemşirelik bakımındaki yerini ve hastaya etkilerini incelemektir.

Anahtar kelimeler: Bakım, Hemşirelik, Kahkaha Yogası

ABSTRACT

Laughter yoga is a unique exercise and mindfulness practice that combines laughter with yoga and breathing techniques. The combination of laughter and deep breathing is believed to increase oxygen to the body and brain, resulting in increased energy and a sense of well-being. During a laughter yoga session, participants are encouraged to engage in prolonged voluntary laughter without relying on jokes or humor. But the concept behind laughter yoga is that the body cannot distinguish between real and fake laughter, it's more about laughter and cultivating a playful mindset. So even simulated laughter rather than real laughter can provide similar physiological and psychological benefits.

In a laughter yoga session, participants perform a series of laughter exercises, usually in a group setting, led by a trained laughter yoga instructor. Laughter is typically initiated by a variety of fun activities such as eye contact, clapping, and movement-based exercises. These activities are designed to encourage childlike playfulness and help break barriers. Laughter yoga sessions can range from short 15-minute sessions to sessions of an hour or more.

Proponents of laughter yoga claim that regular practice can have a variety of health benefits, including stress reduction, improved mood, enhanced immune function, increased oxygen uptake and improved social connections. It is also believed to promote emotional release and help individuals deal with pain and difficult emotions.

It is important to note that laughter yoga should not replace traditional medical treatments or therapies, but rather be used as a complementary approach to improve overall well-being. Nurses can help patients cope with negative emotions by organizing laughter yoga sessions for patients to promote a positive and healing environment in laughter yoga. The aim of this review is to examine the place of laughter yoga in nursing care and its effects on the patient.

Keywords: Care, Nursing, Laughter Yoga

PREOPERATİF DÖNEMDE UYGULANAN MİNDFULNESS TEKNİĞİNİN (BİLİNÇLİ FARKINDALIK) POSTOPERATİF DÖNEMDEKİ HASTAYA ETKİLERİ

THE EFFECTS OF MINDFULNESS TECHNIQUE (CONSCIOUS AWARENESS) APPLIED IN THE PREOPERATIVE PERIOD ON THE PATIENT IN THE POSTOPERATIVE PERIOD

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ÖZET

Mindfulnes (Bilinçli Farkındalık), birçok geleneksel ve tamamlayıcı tıp yaklaşımında da kullanılan bir bilinçli farkındalık uygulamasıdır. Bilişsel davranışçı terapi, stres azaltma programları, psikoterapi ve sağlık bakımı gibi alanlarda kullanılmaktadır. Mindfulnes, dikkatin bilinçli bir şekilde şu anki anı deneyimlemeye yönlendirildiği bir zihinsel durumu ifade etmektedir. Temel olarak, dikkati nefes, duyular, düşünceler ve duygular gibi şu anki deneyimlere odaklamayı içerir. Mindfulnes pratiğinin, meditasyon ve farkındalık egzersizleriyle desteklenerek zihinsel dağınıklığı ve stresi azalttığı, zihinsel, duygusal ve fiziksel iyilik halini arttırdığı belirtilmektedir. Aynı zamanda depresyon, anksiyete, stres, kronik ağrı, uyku sorunları ve diğer sağlık sorunlarına yardımcı olabileceği de belirtilmektedir.

Hastane ortamının, hastalar üzerinde çeşitli olumsuz etkileri görülmektedir. Özellikle cerrahi işlem için hastaneye yatan hastada stres ve endişede artma, Rahatsızlık ve konfor eksikliği, Destek ve iletişim problemleri, Moral ve motivasyon düşüklüğü görülebilmektedir. Bu sonuçları iyileştirmek için fizik tedaviler, farmakolojik ve farmakolojik olmayan yöntemleri içeren önleyici stratejiler kullanılmaktadır. Özellikle farmakolojik olmayan yöntemler arasında olan mindfulness tekniğinin yani bilinçli farkındalığa dayalı müdahalelerin sağlık davranışlarını olumlu etkilediği, ağrıyı azalttığı, psikolojik refahı ve yaşam kalitesini iyileştirdiği belirtilmektedir.

Mevcut literatür, farkındalığa dayalı müdahalelerin cerrahi hasta popülasyonlarında kullanım için uygun ve kabul edilebilir olduğunu göstermektedir. Bununla birlikte, perioperatif süreçte farkındalığa dayalı müdahalelerin uzun vadeli etkinliğini değerlendirmek için daha fazla araştırmaya ihtiyaç vardır. Bu nedenle, bu çalışmanın amacı preoperatif dönemde uygulanan bilinçli farkındalık (mindfulness) programının postoperatif dönemdeki hastaya etkilerinin belirlemesidir.

Anahtar kelimeler: Cerrahi, Hemşirelik, Mindfulness

ABSTRACT

Mindfulnes is a mindfulness practice that is also used in many traditional and complementary medicine approaches. It is used in areas such as cognitive behavioral therapy, stress reduction programs, psychotherapy, and health care. Mindfulnes refers to a state of mind in which attention is consciously directed to experiencing the present moment. Basically, it involves focusing attention on current experiences such as breath, sensations, thoughts, and emotions. It is stated that Mindfulnes practice is supported by meditation and mindfulness exercises, reducing mental clutter and stress, and increasing mental, emotional and physical well-being. It is also stated to help with depression, anxiety, stress, chronic pain, sleep problems and other health problems.

The hospital environment has various negative effects on patients. Increased stress and anxiety, Discomfort and lack of comfort, Support and communication problems, Low morale and motivation can be seen especially in the hospitalized patient for the surgical procedure. Preventive strategies including physical therapies, pharmacological and non-pharmacological methods are used to improve these outcomes. It is stated that the mindfulness technique, which is among the non-pharmacological methods, in other words, mindfulness-based interventions positively affects health behaviors, reduces pain, improves psychological well-being and quality of life.

The available literature indicates that mindfulness-based interventions are appropriate and acceptable for use in surgical patient populations. However, more research is needed to evaluate the long-term effectiveness of mindfulness-based interventions in the perioperative process. Therefore, the aim of this study is to determine the effects of the mindfulness program applied in the preoperative period on the patient in the postoperative period.

Keywords: Mindfulness, Nursing, Surgery

YARALANMALARDA SOĞUK UYGULAMA

COLD APPLICATION IN INJURIES

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ÖZET

Soğuk uygulama genellikle spor yaralanmaları, akut kas-iskelet sistemi ağrıları, inflamatuar hastalıklar, aşırı kullanımdan kaynaklı yaralanmalarda kullanılan basit ve en eski tedavi yöntemlerinden biridir. Kriyoterapi, genellikle lokal ya da sistemik soğuk uygulamaları içeren terapötik süreçleri tanımlamak için kullanılan bir terimdir. Soğuk uygulama vücutta birçok farklı fizyolojik etkiye sahiptir. Hasarlı dokunun sıcaklığının düşürülmesi vazokonstriksiyona neden olarak lokal metabolizmayı, inflamasyonu, ağrıyı ve kas spazmını azaltabilir. Soğuk uygulamanın çeşitli amaçlarla kullanımı MÖ 16. yüzyılda Edwin Smith Papirüsünde yer almış, bu uygulamayı içeren tedavi protokolleri zaman içerisinde ICE, RICE, PRICE, POLICE ve PEACE&LOVE olarak gelişmiştir. Kriyoterapinin soğuk suya daldırma, tüm vücut kriyoterapisi, kısmi vücut kriyoterapisi, soğuk paketler, soğuk kompres cihazları, buz masajı, nörokriyostimülasyon gibi çeşitli uygulama modaliteleri bulunmaktadır. Günümüze kadar bu konu hakkında birçok çalışma yapılmış ve araştırmalar halen devam etmektedir. Bununla birlikte kriyoterapi modalitelerinin hangisinin daha etkili olduğu, ideal tedavi süresi ve yaralanmalarda kullanımının avantaj ve dezavantajları konusunda fikir birliği yoktur. Bu derlemenin amacı soğuk uygulamanın tarihsel gelişimi, uygulama modaliteleri ve tedavi ajanları, fizyolojik etkileri ve yumuşak doku yaralanmalarında kullanımını güncel literatür eşliğinde ortaya koymaktır.

Anahtar kelimeler: soğuk uygulama, yaralanma, kriyoterapi, yaralanmalarda soğuk uygulama, etki mekanizması.

ABSTRACT

Cold application is one of the simplest and oldest treatment methods generally used in sports injuries, acute musculoskeletal pain, inflammatory diseases, overuse injuries. Cryotherapy is a term used to describe therapeutic processes that usually involve local or systemic cold applications. Cold application has many different physiological effects on the body. Decreasing the temperature of the damaged tissue can induce vasoconstriction, reducing local metabolism, inflammation, pain, and muscle spasm. The use of cold application for various purposes was included in the Edwin Smith Papyrus in the 16th century BC, and treatment protocols including this application developed over time as ICE, RICE, PRICE, POLICE and PEACE&LOVE. Cryotherapy has various application modalities such as cold water

immersion, whole body cryotherapy, partial body cryotherapy, cold packs, cold compress machines, ice massage, neurocryostimulation. Many studies have been carried out on this subject to date, and research is still ongoing. However, there is no consensus on which of the cryotherapy modalities is more effective, the ideal treatment duration, and the advantages and disadvantages of its use in injuries. The aim of this review is to reveal the historical development of cold application, application modalities and treatment agents, physiological effects and its use in soft tissue injuries in the light of current literature.

Keywords: cold application, injury, cryotherapy, cold application in injuries, mechanism of action.

LIPOMA OF FILUM TERMINALE

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ABSTRACT

Filum terminale lipomas are a type of lumbosacral lipoma in which the fat is entirely within the filum terminale. In most individuals the filum terminale starts at the L1 level, ranging at any point from the lower one-third of the T11 to the L2–L3 intervertebral space. Spinal dysraphism is a partial fusion or malformation of the bone and neural structures of the spine due to impaired closure of the neural tube during embryogenesis. Filum terminale spinal lipoma is the simplest type of occult spinal dysraphism. Although the etiology is not clear, it is thought that there is a problem in secondary neurulation in the early fetal period. The prevalence of lipoma in filum terminale ranges from %0.24 to %5. The most common symptom for diagnosis is skin patches. It has been reported in the literature to be associated with perineal malformations, Currarino and VACTERL syndromes. In spinal lipoma types, skin patches are seen in more than half of the patients. In our case, a patient with filum terminale lipoma detected by Magnetic resonance imaging (MRI) is presented. Filum terminale lipoma was detected incidentally. Filum terminale lipomas are increasingly being identified on imaging. Most patients are asymptomatic. MRI is the imaging modality of choice for detecting fat within the filum terminale. Surgical intervention is usually not required in asymptomatic patients. The presence of lipoma in the filum terminale can induce microscopic ischemia and reduce the flexibility of the subject, which can cause clinical tethering. Therefore, we aimed to present our clinically important case.

Keywords: Filum terminale lipoma, Lipoma, Magnetic resonance imaging

BİYODAĞILIM ÇALIŞMALARI İÇİN FARE KANSER MODELLERİ

MOUSE CANCER MODELS FOR BIODISTRIBUTION STUDIES

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ÖZET

Kanser biyolojisi çalışmalarında tümör heterojenitesi ve tümör mikroçevresindeki gerek immünolojik gerekse genetik farklılıklar nedeniyle tedavi çalışmalarında zorluklar yaşanmaktadır. Bu nedenle tümör çeşidine, genetik-fenotip olarak farklılığına ve tümör mikroçevresine göre ilaçların hedeflenmesi ve daha spesifik olması cevaplanması gereken sorulardır. Kemoterapik ilaçların, siRNA'ların ya da immünoterapiklerin nano düzeyde hedeflendirilmiş partiküller ve taşıyıcılar ile tümöre taşınmasını amaçlayan yeni nesil ilaç sistemleri günümüzde bilim dünyasının odaklandığı alanlardan birisi haline gelmiştir. Hücre kültüründe toksisite ve hücre içine alım analizlerinin tamamlanmasından sonra preklinik çalışmaların son aşaması olan hayvan çalışmaları bu taşıyıcı ve hedeflendirilmiş sistemlerin biyodağılım, toksisite, tümör etkinlik ve farmokinetik çalışmalarının analizleri için gereklidir. Testler için geliştirilen eşgenik ve ksenograft kanser modelleri in vivo çalışma aşamalarında önemli bir basamağı oluşturmaktadır. Geliştirilen nanosistemlerin biyodağılım çalışmaları için geliştirdiğimiz eşgenik ve ksenograft fare tümör modelleri ile canlı görüntüleme sistemlerinde yapılan biyodağılım çalışmaları hem deney sürelerini hem de kullanılan hayvan sayısını azaltmaktadır. Özellikle ksenograft çalışmalarında immünsupresif hayvanlarda oluşturduğumuz insan tümörleri, çalışmalardaki hata payını azaltmaktadır ve gerçek insan tümörlerini farelerde izleyebilmemize olanak sağlamaktadır. Oluşturulan nanosistemlerin atimik immünsupresif çıplak farelerde oluşturduğumuz ksenograft kanser modellerinde canlı görüntüleme sistemi kullanılarak biyodağılımı incelenebilmektedir. Böylelikle organlarda biriken nanosistemlerin tayini yapılabilmektedir ve diseksiyon sonrası kantitatif veriye dönüştürülebilmektedir. Akım sitometri ve immünfloresan metodları kullanılarak organlarda yer alan dokuların spesifik olarak hangisinin daha çok nanosistemleri barındırdığı da takip edilebilmektedir. Çalışmamızdaki modellerin biyodağılım çalışmalarında araştırmacılarının preklinik olarak daha gerçekçi veri toplayabilmesine olanak sağlayacaktır. Tümöre ve tümör mikroçevresine doğru hedefleme gösteren nanosistemin seçilmesi sayesinde daha az hayvan harcanmasını ve böylece tedavi etkinlik çalışmaları için doğru nanosistemin seçilerek maliyeti de düşürmeyi sağlayacaktır.

Anahtar kelimeler: Kanser, Biyodağılım, Ksenograft.

ABSTRACT

In cancer biology studies, there are difficulties in treatment studies due to tumor heterogeneity and both immunological and genetic differences in the tumor microenvironment. Therefore, targeting and more specific drugs according to tumor type, genetic-phenotype differences and tumor microenvironment are questions that need to be answered. New generation drug systems aiming to deliver chemotherapeutic drugs, siRNAs or immunotherapeutics to tumors with nano-targeted particles and carriers have become one of the areas of focus for the scientific world today. After the completion of toxicity and uptake analyzes in cell culture, animal studies, which are the last stage of preclinical studies, are required for the analysis of biodistribution, toxicity, tumor efficacy and pharmacokinetic studies of these transporter and targeted systems. The syngenic and xenograft cancer models developed for the tests constitute an important step in the in vivo study stages. The syngenic and xenograft mouse tumor models we have developed for biodistribution studies of the developed nanosystems and biodistribution studies performed in live imaging systems reduce both the experimental time and the number of animals used. In particular, human tumors that we have created in immunosuppressive animals in xenograft studies

reduce the margin of error in studies and allow us to monitor real human tumors in mice. The biodistribution of the formed nanosystems can be examined in xenograft cancer models created in athymic immunosuppressive nude mice by using the live imaging system. Thus, the nanosystems accumulated in the organs can be determined and converted into quantitative data after dissection. By using flow cytometry and immunofluorescence methods, it is also possible to monitor which tissues in the organs contain more nanosystems. The models in our study will enable researchers to collect more realistic data preclinically in biodistribution studies. Choosing the nanosystem targeting the tumor and tumor microenvironment will ensure that less animals are spent and thus the cost of choosing the right nanosystem for treatment efficacy studies will be reduced.

Keywords: Cancer, Biodistribution, Xenograft.

MEME KANSERİNDE LAETRİLE (AMİGDALİN VEYA VİTAMİN B17) TEDAVİSİ

LAETRILE (AMYGDALIN OR VITAMIN B17) TREATMENT IN BREAST CANCER

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ÖZET

Meme kanseri, Dünya Sağlık Örgütü verilerine göre kadınlarda en sık görülen kanser türüdür. Aynı zamanda kadınlarda kanser ile ilişkili ölümlerin en sık ikinci nedenidir. Tarama programlarının gelişmesi ile birlikte meme kanserinin erken tanı ve tedavisi mümkün olmakta ve hastaların sağkalım oranları artmaktadır. Erken ve ilerlemiş meme kanseri olan hastalarda tanı ve tedavisinde, nüksün önlenmesi ve sağkalım için bazı diyet takviyeleri ve bitkisel tedaviler tamamlayıcı tedavi olarak kullanılabilmektedir. Laetrile, şeftali, acı badem ve kayısı gibi birçok meyvenin tohumlarından ve Prunus cinsinin diğer çeşitli türlerinden elde edilen bir siyanojenik glikozit olan amigdalin ile kimyasal olarak ilişkili yarı sentetik bir bileşiğin adıdır. Vücuda alındığında siyanüre dönüşen hidrojen siyanürü meydana getirmektedir. Hidrojen siyanürün kanser hücrelerini inhibe ettiği düşünülmektedir. Laetril, etkinliğine dair net bir kanıt olmamasına rağmen kanser tedavisi için çeşitli isimler altında tanıtılmaktadır ve kayısı çekirdeğinde bulunan amigdalin bileşiğinin, hücrelerin üremesini durdurarak tümörleri yok etmek ve kanseri önlemek için bir yol olabileceği öne sürülmektedir. Laetril, Amerikan Beslenme Vitaminleri Enstitüsü tarafından bir vitamin olarak onaylanmamış olmasına rağmen, Vitamin B-17 olarak da adlandırılmaktadır. Laetril, sağlıklı hücrelerdeki koruyucu enzimlerle uyumlu hale gelmekte ve kanser hücrelerini, sağlıklı hücreleri tehdit etmeden tahrip edebilmektedir. Olası siyanür zehirlenmesi nedeniyle Laetrile tehlikeli olabilmektedir. Laetril'in etkinliğinin olmaması ve siyanür zehirlenmesinden kaynaklanan yan etki riski ile çeşitli yetkili kurumlar tarafından yayınlanan rehberlere göre de meme kanserinin tamamlayıcı tedavisinde tüketimi yasaklanmış bir diyet takviyesidir. Ancak tüm bunlara rağmen, çeşitli kaynaklar aracılığıyla kanser hastalarının bu ürünlere ulaşımı farklı ticari faaliyetlerle kolaylaştırılmakta ve yeteri kadar bilgi verilmemektedir. Bu durumda, olası yan etkilerin gözlemlenmesine neden olabilmektedir. Belirtilen kapsamlar göz önünde bulundurulduğunda, bu derlemede, meme kanseri hastalarının laetrile kullanımı ve olası yan etkileri hakkında literatüre katkı sağlamak amaçlanmaktadır.

Anahtar kelimeler: Meme kanseri, Laetril, Beslenme, Amigdalin

ABSTRACT

Breast cancer is the most common type of cancer in women according to World Health Organisation data. It is also the second most common cause of cancer-related deaths in women. With the development of screening programmes, early diagnosis and treatment of breast cancer is possible and survival rates of patients are increasing. In the diagnosis and treatment of patients with early and advanced breast cancer, some dietary supplements and herbal therapies can be used as complementary therapy for the prevention of recurrence and survival. Laetrile is the name of a semi-synthetic compound chemically related to amygdalin, a cyanogenic glycoside obtained from the seeds of many fruits such as peach, bitter almond and apricot, and various other species of the genus Prunus. When taken into the body, it

forms hydrogen cyanide, which is converted into cyanide. Hydrogen cyanide is thought to inhibit cancer cells. Laetrile is promoted under various names for cancer treatment, although there is no clear evidence of its effectiveness, and it has been suggested that the amygdalin compound found in apricot kernels may be a way to destroy tumours and prevent cancer by stopping the reproduction of cells. Laetrile is also called Vitamin B-17, although it has not been approved as a vitamin by the American Institute of Nutritional Vitamins. Laetrile is able to harmonise with protective enzymes in healthy cells and destroy cancer cells without threatening healthy cells. Laetrile can be dangerous due to possible cyanide poisoning. Due to Laetrile's lack of efficacy and the risk of side effects due to cyanide poisoning, it is a dietary supplement that is prohibited for the complementary treatment of breast cancer according to guidelines published by various authorised bodies. However, despite all these, access to these products by cancer patients through various sources is facilitated by different commercial activities and insufficient information is provided. This may lead to the observation of possible side effects. Considering the mentioned scopes, this review aims to contribute to the literature on laetrile use and possible side effects in breast cancer patients.

Keywords: Breast cancer, Laetrile, Nutrition, Amygdalin

PROPOLİS TAKVİYESİNİN KARDİYOVASKÜLER HASTALIK, LİPİT PROFİLİ VE ATEROJENİK RİSK ÜZERİNDEKİ ETKİSİ

EFFECT OF PROPOLIS SUPPLEMENTATION ON CARDIOVASCULAR DISEASE, LIPID PROFILE AND ATHEROGENIC RISK

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ÖZET

Kardiyovasküler hastalıklar, ciddi ekonomik yüke sebep olan ve dünyadaki ölümlerin birincil nedeni olarak kabul edilen bir sağlık problemidir. Buna bağlı olarak, güncel tedavi yaklaşımları ve tanı öntemleri son zamanlarda önem kazanmıştır. Kan lipitleri olarak tanımlanan HDL (high density lipoprotein), LDL (low density lipoprotein), TG (trigliserit), total kolesterol değerleri kullanılarak hesaplanan plazma aterojenik indeks (AIP), kardiyak risk oranı (CRR), kardiyoprotektif indeks (CPI) ve aterojenik katsayı (AC) bireylerin kardiyovasküler hastalık risklerini belirlemede kullanılan güncel yöntemlerdir. Literatürde antioksidan, antienflamatuar, antiaterosklerotik, antianjiyojenik ve antikoagülan etkiye sahip olan propolislerin kardiyovasküler hastalık ve lipit profillerine etkisi üzerine çok sayıda kanıta dayalı sonuç rapor edilmiştir. Propolis kullanımı kan damarı endotelyumu enfeksiyonunu, trombosit agregasyonunu, okside olmuş LDL ve malondialdehid (MDA) değerini azaltabilmektedir. Propolisin antioksidan etkisi özlerin toplandığı coğrafyaya, mevsime ve ekstraksiyon işlemi için kullanılan çözücüye göre değişiklik gösterebilmektedir. Buna bağlı olarak propolisin kardiyovasküler hastalık ve lipitler üzerindeki etkileri farklı düzeylerde olabilmektedir. Propolisin antiaterosklerotik etkisi endotelin ve vasküler endotelyal büyüme faktörü (VEGF) sekresyonunu inhibe etmesine, serum lipit düzeylerini ve enflamasyonu düzenlemesine bağlanmaktadır. Aynı şekilde antioksidan etkisinin de vasküler endotel disfonksiyonu önlediği çalışmalarda gözlenmiştir. Literatürde propolisin profilini iyileştirdiğini, AIP'yi control altına aldığını gösteren çok sayıda çalışma bulunmaktadır. Bunun olası mekanizması propolisin içeriğinde bulunan polifenoller ile açıklanmaktadır. Antianjiyojenik özelliği incelendiğinde başta flavonoller olmak üzere içerdiği polifenollerin etkili olduğu görülmektedir. Sonuç olarak propolis kullanımı HDL'yi artırıcı; TC, TG, LDL ve AIP'yi azaltıcı etkisi sayesinde kardiyovasküler hastalığa karşı koruyabilir ve hipolipidemik etki gösterebilir. Bu çalışmada, son yıllarda önemi gittikçe artan propolis takviyesinin kardiyovasküler hastalık, lipit profili ve aterojenik risk üzerindeki etkisi araştırılmıştır.

Anahtar kelimeler: Aterojenik risk, kardiyovasküler hastalık, lipit profili, propolis

ABSTRACT

Cardiovascular disease is a health problem that causes a serious economic burden and is recognised as the primary cause of death worldwide. Accordingly, current treatment approaches and diagnostic methods have recently gained importance. Plasma atherogenic index (AIP), cardiac risk ratio (CRR), cardioprotective index (CPI) and atherogenic coefficient (AC), which are calculated using HDL (high density lipoprotein), LDL (low density lipoprotein), TG (triglyceride) and total cholesterol values defined as blood lipids, are the current methods used to determine the cardiovascular disease risks of

individuals. In the literature, many evidence-based results have been reported on the effect of propolis, which has antioxidant, anti-inflammatory, antiatherosclerotic, antiangiogenic and anticoagulant effects, on cardiovascular disease and lipid profiles. Propolis use can reduce blood vessel endothelium infection, platelet aggregation, oxidised LDL and malondialdehyde (MDA). The antioxidant effect of propolis may vary according to the geography, season and solvent used for the extraction process. Accordingly, the effects of propolis on cardiovascular disease and lipids may be at different levels. The antiatherosclerotic effect of propolis is attributed to its inhibition of endothelin and vascular endothelial growth factor (VEGF) secretion, regulation of serum lipid levels and inflammation. Likewise, it has been observed in studies that its antioxidant effect prevents vascular endothelial dysfunction. In the literature, there are many studies showing that propolis improves the profile and controls AIP. The possible mechanism of this is explained by the polyphenols contained in propolis. When its antiangiogenic properties are analysed, it is seen that the polyphenols, especially flavonols, are effective. As a result, the use of propolis may protect against cardiovascular disease and show hypolipidaemic effect by increasing HDL and decreasing TC, TG, LDL and AIP. In this study, the effect of propolis supplementation, which has become increasingly important in recent years, on cardiovascular disease, lipid profile and atherogenic risk was evaluated.

Keywords: Atherogenic risk, cardiovascular disease, lipid profile, propolis

YENİDOĞANIN CİLT BAKIMINDA HARDAL YAĞI KULLANILABİLİR Mİ?

CAN MUSTARD OIL BE USED FOR NEWBORN SKIN CARE?

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ÖZET

Yenidoğanın cildi morfolojik ve fonksiyonel olarak bir yetişkinin cildinden farklıdır. Yenidoğanlarda deri yüzey alanının fazlalığı, dermis ve epidermis arasındaki bağlantının zayıf olması, bazik pH'ı ve serbest yağ dokusunun azlığıyla yenidoğan cildi, termoregülasyon ve deri fonksiyonlarını tam olarak yerine getirememektedir. Aynı zamanda çok sık cilt problemleriyle karşılaşılmaktadır. Yenidoğanın gestasyon yaşı ile cildin gelişim süreci doğru orantılıdır. Bu nedenle cildi hassas, mikroorganizmalara duyarlı ve immatür bir yapıya sahip yenidoğanlarda cilt problemlerinin önlenmesi, travmalardan korunması, adaptasyon sürecinin sağlıklı tamamlanabilmesi ve cildin devam eden gelişiminin desteklenmesi için cildin özel bir bakıma gereksinimi vardır. Yenidoğanın rutin cilt bakımlarından biri olan nemlendiricilerdir. Nemlendirmede ürün kullanımı konusunda ortak bir görüş birliği bulunmamasına rağmen gelişmiş ve gelişmekte olan ülkelerde doğal yağlar, yenidoğanın cildi için yaygın olarak kullanılmaktadır. Doğal yağlar hem ucuz hem de kolay ulaşılabilmesi açısından ebeveynler için seçenek oluşturmaktadır. Literatürde cilt için kullanılabilecek ürünler arasında; hardal, ayçiçek, susam, hindistan cevizi, zeytin, soya fasulyesi, palm yağları, likit vazaelin, merhem, krem ve nemlendiriciler yer almaktadır. Kanıt temelli çalışmalarda bu yağlarının derinin üzerinde bir tabaka oluşturarak vücut ısısını koruduğuna, kilo alımını artırdığına, bakteriyel kolonizasyonu ve sepsisi azalttığına yönelik olumlu etkileri ile birlikte zararlı etkilerinin olabileceği de bildirilmektedir. Doğal yağların yenidoğan cildine sık sık uygulanması gibi güçlü geleneksel uygulamalar nedeniyle yarar algısı gelişmiş olsa da, bu uygulamaların gerçek yararları veya zararları hakkında çok az şey belgelenmiştir. Hardal yağı da yenidoğanın cildinin nemlendirilmesinde ya da masaj için tercih edilen yağlar arasındadır. Bu derlemede hardal yağının özellikleri ve yenidoğanın cilt üzerine etkileri tartışılacaktır.

Anahtar kelimeler: Yenidoğan, cilt bakımı, hardal yağı.

ABSTRACT

The skin of the newborn is morphologically and functionally different from the skin of an adult. In newborns, skin of the newborn cannot fully fulfill its thermoregulation and skin functions due to the excess skin surface area, the weak connection between the dermis and the epidermis, its basic pH and the lack of free adipose tissue. At the same time, skin problems are encountered very often. The gestational age of the newborn and the development process of the skin are directly proportional. Therefore, newborns with sensitive skin, sensitive to microorganisms and immature skin need special care in order to prevent skin problems, protect them from traumas, complete the adaptation process in a healthy way and support the ongoing development of the skin. Moisturizers are one of the routine skin care of the newborn. Although there is no consensus on the use of products for moisturizing, natural oils are widely used for newborn skin in developed and developing countries. Natural oils are an option for parents in terms of both cheap and easy access. Among the products that can be used for the skin in the literature; mustard, sunflower, sesame, coconut, olive, soybean, palm oils, liquid vazaelin, ointments,

creams and moisturizers are included. It has been reported in evidence-based studies that these oils may have harmful effects as well as positive effects that form a layer on the skin, protect body temperature, increase weight gain, reduce bacterial colonization and sepsis. Although perceptions of benefit have improved due to strong traditional practices, such as the frequent application of natural oils to newbom skin, little has been documented about the actual benefits or harms of these practices. Mustard oil is among the preferred oils for moisturizing the skin of the newborn or for massage. In this review, the properties of mustard oil and its effects on the skin of the newborn will be discussed.

Keywords: Newborn, skin care, mustard oil.

PRENATAL CARE RECEIPT IN TURKEY AND AFFECTING FACTORS: A SYSTEMATIC REVIEW OF GRADUATE THESES TIMES NEW ROMAN, 12 PT, BOLD

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ÖZET

Amaç: Bu çalışmanın amacı, Türkiye' de gebelerin doğum öncesi bakım alma durumları ve bunları etkileyen faktörlerin değerlendirildiği hemşirelik ve ebelik lisansüstü tezlerin incelenmesidir.

Yöntem: Bu çalışma sistematik derleme niteliğinde olup, Yükseköğretim Kurulu Ulusal Tez Merkezi'ne kayıtlı Hemşirelik ve Ebelik Anabilim Dalları'nda 2013-2023 yılları aralığında yapılan yüksek lisans ve doktora tezleri incelenmiştir. Veri tabanı, Mart 2023 - Nisan 2023 tarihleri aralığında "doğum öncesi bakım", "prenatal bakım" ve "antenatal bakım" anahtar kelimeleri ile taranmıştır. Tarama sonucunda 21 teze ulaşılmıştır. Dahil edilme kriterlerini karşılayan 10 lisansüstü tez çalışmanın örneklemini oluşturmaktadır. Çalışma, Sistematik Derlemeler ve Meta-Analizler için Tercih Edilen Raporlama Öğeleri (PRISMA)'ne göre metodolojik açıdan düzenlenmiştir. Bu çalışmada, erişime açık olan yüksek lisans ve doktora tezleri örnekleme dâhil edildiği için etik kurul izni gerektirmemiştir.

Bulgular: Araştırmaya dahil edilen tez çalışmalarınnın %80'i hemşirelik yüksek lisans ve %20'si ebelik yüksek lisans tez çalışmasıdır. Çalışmalar tanımlayıcı tipte olup, doğum öncesi bakım hizmetlerini alma durumu, hizmetlerin niteliği ve içeriği, hizmet alımını etkileyen faktörleri, hizmetlere yönelik memnuniyetleri ve COVİD-19 pandemi sürecine etkisi incelenmiştir. Çalışmaların verileri araştırmacıların geliştirdiği anketler, sosyodemografik veri toplama formları, Doğum Öncesi Bakım Memnuniyet Ölçeği (DÖBMÖ), Hasta Beklentileri ölçeği aracılığı ile yüzyüze görüşme tekniği kullanılarak toplanmıştır. Verilerin analizinde tezlerin yayın yılı, amacı, örneklem grubu, örneklem sayısı, dizaynı ve sonuçları özetlenmiştir. Çalışmada yer alan tezler çoğunlukla, yaş, eğitim düzeyi, evlilik süresi, gebelik sayısı, çocuk sayısı, gebeliğin istenme durumu, sık doğum değişkenleri ile eşin eğitim düzeyinin kadınların doğum öncesi bakım hizmetlerini alma durumlarını etkilediğini belirtmektedir. COVID-19'un doğum öncesi bakımına etkisinin incelendiği iki çalışmada, gebelerin COVID-19 pandemisi kaynaklı gebe okulu eğitiminden mahrum kaldığı, çoğunlukla beş ve üzeri izlem yapılmasına rağmen bu izlemlerin çoğunlukla özel hastanede yapıldığı ve doğum öncesi bakım hizmetini almada birinci basamak sağlık kuruluşlarının işlevinin azaldığı vurgulanmıştır. Ayrıca bir çalışmada da, doğum öncesi bakım kapsamında fizik muayene, ilaç desteği, bağışıklama, test ve laboratuvar hizmetlerinin ön planda tutulurken, danışma ve bilgi paylaşımı konularının arka plandan kaldığı vurgulanmıştır.

Sonuç: Çalışmalar genel olarak doğum öncesi bakım alma niceliğinin fazla gibi görünse de niteliksel olarak incelenmesi gerektiğini, konu kapsamında birinci basamak sağlık hizmetlerine önem verilmesi, danışmanlık ve bilgi verme konularına ağırlık verilmesi gerektiği vurgulanmaktadır.

Anahtar kelimeler: doğum öncesi bakım, prenatal bakım, antenatal bakım, lisansüstü tez, sistematik derleme

ABSTRACT

Objective: The aim of this study was to examine the postgraduate nursing and midwifery theses in Turkey in which the status of prenatal care of pregnant women and the factors affecting them were evaluated.

Method: This study is a systematic review and the master's and doctoral theses conducted between 2013 and 2023 in the Departments of Nursing and Midwifery registered in the National Thesis Center of the Council of Higher Education were examined. The database was searched with the keywords "prenatal care", "prenatal care" and "antenatal care" between March 2023 and April 2023. As a result of the search, 21 theses were reached. Ten postgraduate theses that met the inclusion criteria constituted the sample of the study. The study was methodologically organized according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). This study did not require ethics committee permission as the master's and doctoral theses that were open to access were included in the sample.

Results: Of the theses included in the study, 80% were nursing master's theses and 20% were midwifery master's theses. The studies were descriptive and examined the status of receiving prenatal care services, the quality and content of services, factors affecting service receipt, satisfaction with services, and the impact of the COVID-19 pandemic process. The data of the studies were collected through questionnaires developed by the researchers, sociodemographic data collection forms, Prenatal Care Satisfaction Scale (PCSS), Patient Expectations Scale and face-to-face interview technique. In the analysis of the data, the year of publication, purpose, sample group, sample number, design and results of the theses were summarized. The theses included in the study mostly state that age, education level, marriage duration, number of pregnancies, number of children, desired pregnancy, frequent birth variables and the education level of the spouse affect women's receipt of prenatal care services. In two studies examining the impact of COVID-19 on prenatal care, it was emphasized that pregnant women were deprived of pregnancy school education due to the COVID-19 pandemic, although there were mostly five or more follow-ups, these follow-ups were mostly performed in private hospitals and the function of primary health care institutions in receiving prenatal care services decreased. In another study, it was also emphasized that while physical examination, drug support, immunization, testing and laboratory services were prioritized within the scope of prenatal care, counseling and information sharing remained in the background.

Conclusion: Studies generally emphasized that although the quantity of prenatal care seems to be high, it should be examined qualitatively, primary health care services should be emphasized, and counseling and information sharing should be emphasized.

Keywords: antenatal care, prenatal care, antenatal care, postgraduate thesis, systematic review

PROGNOSTIC VALUE OF NEUTROPHIL-TO-LYMPHOCYTE RATIO IN SMALL ANIMAL MEDICINE

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ABSTRACT

Neutrophil-to-lymphocyte ratio (NLR) has become a frequently used parameter in human medicine literature as a new and profound insight into the dynamic course of the immune-inflammatory response as a response between the innate and adaptive cell immune systems during various pathological conditions and diseases. Increasingly important in veterinary medicine, NLR has started to take place in animal studies. NLR, which is the ratio of increasing neutrophil count to decreasing lymphocyte count in response to infection, is used as a potential biomarker for early detection, monitoring treatment response and predicting prognosis. The neutrophil-to-lymphocyte ratio (NLR) is a rapid and reliable immunological marker that reflects ongoing inflammation, infection, tissue injury, stress response to a disease, organ dysfunction, and correlates with the severity of the underlying disease. An increased NLR is often associated with an increased inflammatory response, while a decreased NLR may indicate a compromised immune system. NLR has been investigated in veterinary critical care settings, such as cases of sepsis or systemic inflammatory response syndrome (SIRS). Monitoring changes in NLR over time can help assess the effectiveness of interventions and guide clinical decision-making. The neutrophil-to-lymphocyte ratio serves as a supportive tool in clinical decision-making, allowing veterinarians to optimize patient care and treatment strategies. Further research and validation is ongoing to improve the understanding and application of NLR in veterinary practice. However, it is important to note that NLR should not be interpreted in isolation but in combination with other clinical parameters and diagnostic tests. The individual characteristics of specific disease being evaluated should be taken into account when interpreting NLR values. In this review, prognostic value of neutrophil-to-lymphocyte ratio in small animal medicine will be described according to the literature data.

Keywords: Disease, neutrophil-to-lymphocyte ratio, prognosis, small animal medicine.

IMPACT OF METHYLENETETRAHYDROFOLATE REDUCTASE GENE POLYMORPHISM ON INCIDENCE OF TUMOR GROWTH AND THALASSEMIA

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ABSTRACT

Methionine is an essential amino acid for humans, but it can be resynthesized from its metabolic product, homocysteine. If any link involved in methionine resynthesis is disturbed, homocysteine accumulates, which is associated with many pathological conditions, such as tumors, cardiovascular diseases, stroke, diabetes, etc. Methionine metabolism plays a key role in the synthesis of hormones (catecholamines), choline, phospholipids, thymine (DNA), and many other reactions that require the presence of active methyl groups in the form of C-adenosylmethionine. Polymorphism of the gene encoding the enzyme Methylenetetrahydrofolate reductase (MTHFR), responsible for the formation of methionine, directly affects all of the above processes. Folic acid deficiency, due to reduced MTHFR activity, negatively affects the synthesis of proteins involved in the anticoagulant system, as well as the synthesis of genetic material for rapidly proliferating cells, leading to anemia, thrombocytopenia, and lymphocytic cells. On the one hand, a decrease in the activity of actively proliferating cells may seem beneficial in the treatment of tumors. But the negative impact of folate deficiency on the state of the immune system, namely, T-cells, creates favorable conditions for tumor escape and immune surveillance. The fact of the association between MTHFR gene polymorphism and complications associated with a hypercoagulable state in patients with thalassemia remains controversial: some scientists reveal the presence of a statistically accurate relationship, while the others practically rejects this statement. This suggests that there is a more subtle mechanism for this enzyme impact on coagulation, and more profound researches are required to identify a third link in the gene- MTHFR enzyme-coagulopathy axis in thalassemics.

Keywords: cancer, homocysteine, Methylenetetrahydrofolate reductase, polymorphism, thalassemia

BÜYÜK DEPREMLER SONRASINDA AMELİYATHANELERDE YAPILAN CERRAHİ GİRİŞİMLER

SURGICAL INTERVENTIONS IN OPERATING ROOMS AFTER MAJOR EARTHQUAKES

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ÖZET

Amaç: Afetler, insanların hayatlarını kaybetmelerine, yaralanmalarına ve sakat kalmalarına ek olarak, yerlerinden edilmelerine, yaşam alanlarını ve mülklerini kaybetmelerine neden olmaktadır. Özellikle depremler, hem insan hayatı hem de yaşam alanları açısından ciddi bir tehdit oluşturma potansiyeli taşımaktadırlar. Güncel olarak yaşadığımız afetler, pandemiler, savaşlar gibi olağan dışı durumlarda hastaneler, diğer kurumlardan farklı olarak kesintisiz bir şekilde sağlık hizmeti sunmaya devam etmektedirler. Depremin doğrudan etkisiyle ortaya çıkan fiziksel travmalar, kazazedelerin genellikle cerrahi tedavi tekniklerinin uygulandığı cerrahi birimlere yönlendirilmesine neden olur. Hastaların hayatta kalmaları, büyük ölçüde bu birimlerden aldıkları tıbbi hizmetlere bağlıdır. Bu çalışmanın amacı: Deprem sonrasında ameliyathanelerde yapılmış cerrahi girişimleri incelemektir. Bu amaç doğrultusunda büyük depremler sonrasında ameliyathanelere getirilen vakaların özellikleri, cerrahi gereksinimleri ve ameliyathane ekibinin organizasyonu hakkında temel bir bilgi verilerek değerlendirme yapılacaktır.

Gereç ve Yöntem: Araştırma kesitsel türde yapılmıştır ve 2010-2023 tarihleri arasında yayınlanan makalelerde, şiddetli depremler sonrası ameliyathaneye getirilen vakalar incelenmiştir. PubMed, Web of Science ve Google Schooler veri tabanlarında; deprem sonrası cerrahi, deprem sonrası cerrahi tedavi, deprem sonrası ameliyathane organizasyonu anahtar kelimeleri kullanılarak taranmıştır.

Bulgular: Taranan yayınlarda deprem sonrası ameliyathaneye getirilen vakaların, fasyotomi, yara debritmanı, kırık redüksiyonu, iç organ yaralanmaları, iç ve dış kanamalar ve amputasyon gibi travmatik olgulardan oluştuğu görülmektedir. Bu tablolarda çoğunlukla kazazede/yaralıların cerrahi bir teknik uygulanarak tedavi edildiği görülmüştür.

Sonuç: Araştırma sonucunda deprem sonrası ameliyathanelere getirilen vakaların travmatik olgular olduğu görülmüştür. Amputasyon gibi ciddi bir kararı, ekipte bulunan farklı branşlardan deneyimli hekimler birlikte vermiştir. Farklı branşlardan ekipler, zaman baskısı altında organize bir şekilde çalışmışlardır. Deprem sonrası ameliyathanelere gelebilecek travma vakaları için, afet öncesi travma ekiplerinin oluşturulması önerilmektedir.

Anahtar kelimeler: deprem; deprem sonrası cerrahi tedavi; ameliyathane organizasyonu.

ABSTRACT

Objective: Disasters cause displacement, loss of habitat and property, in addition to the loss of life, injury and disability of people. Especially earthquakes have the potential to pose a serious threat to both human life and living spaces. Hospitals, unlike other institutions, continue to provide uninterrupted health services in extraordinary situations such as disasters, pandemics, and wars that we are currently experiencing. The physical traumas caused by the direct effect of the earthquake cause the casualties to be directed to the surgical units, where surgical treatment techniques are generally applied. The survival of patients largely depends on the medical services they receive from these units.

The purpose of this study: To examine the surgical interventions made in the operating rooms after the earthquake. For this purpose, an evaluation will be made by giving basic information about the

characteristics, surgical requirements and the organization of the operating room team of the cases brought to the operating rooms after major earthquakes.

Materials and Methods: The research was cross-sectional and in the articles published between 2010-2023, cases brought to the operating room after severe earthquakes were examined. In PubMed, Web of Science and Google Scholar databases; Post-earthquake surgery, post-earthquake surgical treatment, post-earthquake operating room organization were searched using keywords.

Results: In the scanned publications, it is seen that the cases brought to the operating room after the earthquake consist of traumatic cases such as fasciotomy, wound debridement, fracture reduction, internal organ injuries, internal and external hemorrhages, and amputation. In these tables, it was seen that mostly the casualties/injured were treated by applying a surgical technique.

Conclusion: As a result of the research, it was seen that the cases brought to the operating rooms after the earthquake were traumatic cases. Experienced physicians from different branches in the team made a serious decision such as amputation. Teams from different branches worked in an organized manner under time pressure. It is recommended to form pre-disaster trauma teams for trauma cases that may come to operating rooms after an earthquake

Keywords: earthquake; surgical treatment after earthquake; operating room organization.

PRELIMINARY CHARACTERIZATION OF A LOCAL HERBAL EXTRACT FROM CUPRESSACEAE SPECIES

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ABSTRACT

1. Objectives: The present work aimed to contribute to the characterization of one of the local aromatic and medicinal plant extract from Cupressaceae species grown in the north of Algeria. The plant consists on cypress.

2. Methods: The aerial part of the plant was collected in the spring. It was subjected to hydrodistillation using Clevenger in order to obtain the extract which consists on essential oil. The extract was subjected to organoleptic evaluation and physicochemical characterization. Relative density, refractive index and rotary power were determined by pycnometer, refractometer and polarimeter respectively. Acid value was determined by using acidobasic titration. The chemical composition of the studied extract was analysed by gas chromatography-mass spectrometry (GC-MS).

3. Results: Cypress extract had clear and mobile liquid. It had yellowish colour and characteristic odour. The essential oil relative density, refractive index, and acid value were 0.875, 1.476, and 0.56. The oil was dextrorotatory. Both organoleptic and physicochemical characteristics were in the accordance with international standard which revealed the good quality of the studied extract. Gas chromatography analysis identified twenty-one volatile compounds in the oil. Monoterpene hydrocarbons (~68%) constituted the major fraction of the oil which was followed by sesquiterpene hydrocarbons (~9%), oxygenated sesquiterpenes (~4%) and oxygenated monoterpenes (~1%). α-Pinene, δ-3-Carene, and 2-Isopropyl-1-methoxy-4-methylbenzene were the most abundant molecules in the oil.

4. Conclusion: These findings indicate that the local cypress essential oil had a good quality and constitute interesting natural products that may use in food, pharmaceuticals and cosmetics.

Keywords: herbal extract, Cupressaceae species, characterization, chemical composition.

GREEN SYNTHESIS OF MAGNETIC IRON OXIDE NANOPARTICLES (Fe_3O_4 NPs) FOR IMAGING AND BRAIN CANCER TREATMENT

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ABSTRACT

Brain cancer disrupt specific properties of the vascular endothelia, even affecting the special blood-brain barrier, collectively known as the blood-brain tumor barrier. Green synthesis of magnetic Fe_3O_4 NPs using grape extract has become a promising nanomaterial as their magnetic properties have excellent potential against brain cancer treatment. The magnetic nanoparticles (Fe_3O_4 NPs) were synthesized by a Sol-gel method. The manifold characterization i.e., XRD, SEM, FTIR, UV-Visible and EDX were performed to confirm the crystalline structure, morphological analysis, functional group analysis, energy band gap and elementary composition to demonstrate the synthesis of green magnetic nanoparticles (Fe_3O_4 NPs). Several nanoparticles (such as NiO NPs, Gd NPs, and Au NPs etc.) have been used for biomedical application as well as for brain cancer treatment. The potent antibacterial inhibitory activities of Fe_3O_4 NPs have been examined by pathogenic bacterial strains studied against Gram-negative bacterial strain *Klebsiella pneumoniae* and Gram-positive bacterial strain *Staphylococcus aureus.* Finally, synthesized Fe_3O_4 NPs were tested for potential cytotoxicity against AMGM5 (human brain cancer) cell line. The Current development of therapeutic analysis like radiotherapy was led to comprehensive treatment of various malignant tumors. Future studies are underway to understand the excellent effects of Fe3O4 NPs in the treatment of brain cancer.

Keywords: Fe_3O_4 NPs, brain cancer, Gram-positive and negative bacteria

ASSESSING THE IMPACT OF AIR POLLUTION ON HUMAN RESPIRATORY HEALTH: A SENSOR-BASED APPROACH FOR MASK USAGE AND TIME LIMIT RECOMMENDATIONS

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"Clean air is not only a basic necessity; it is a fundamental right for every individual to breathe freely and live a healthy life."

Air pollution is a significant threat to human respiratory health. This study aims to analyze the effects of air pollution on respiratory health and propose a sensor-based approach for individuals to assess air quality, determine the need for mask usage, and limit outdoor exposure time. Using air quality sensors and wearable devices, air pollution data was collected, including particulate matter (PM2.5 and PM10), nitrogen dioxide (NO2), ozone (O3), and volatile organic compounds (VOCs). Concurrently, participants wore sensors monitoring their breathing patterns and respiratory health indicators. A cohort design was employed, recruiting participants from diverse backgrounds residing in areas with varying air pollution levels. Data on participants' characteristics, lifestyle, and pre-existing respiratory conditions were collected. Statistical analysis explored associations between air pollutant exposure and respiratory health outcomes, accounting for confounding factors. An algorithm integrating real-time air pollution data and individual respiratory health indicators provided personalized recommendations on mask usage and limiting outdoor exposure time. Preliminary findings showed significant associations between increased air pollutant levels and declining respiratory health indicators. The algorithm's recommendations demonstrated promising results in guiding individuals to make informed decisions based on real-time air quality information. This study contributes to evidence on the adverse effects of air pollution on respiratory health and offers a practical solution for individuals to protect themselves by wearing masks and managing outdoor activities. Implications include public health interventions, urban planning strategies, and policy development to reduce air pollution and promote respiratory health. The sensor-based approach empowers individuals to proactively address air pollution's impact, emphasizing the importance of air quality monitoring and informed decision-making.

Keywords: Air pollution, Respiratory Health, Sensor-based Approach, Mask usage, Outdoor exposure time, Air quality monitoring, Particulate matter, Nitrogen Dioxide, Ozone, Volatile Organic compounds, cohort design, algorithm, Public health interventions, urban planning, Policy development.

POTENTIAL DRUG-DRUG INTERACTIONS WITH ANTICOAGULANTS AMONG POST-OPERATIVE PATIENTS AT A TERTIARY CARE INSTITUTE IN PAKISTAN: A COMPREHENSIVE ANALYSIS

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ABSTRACT

Background: Polypharmacy increases the risk of potential drug-drug interactions (pDDIs) in post-operated patients with cardiovascular diseases (CVD). Anticoagulants are prone to pDDIs and have critical adverse effects. This study used Micromedex Drug-Int® and Lexicomp Interact® to determine the severity of pDDIs with anticoagulants in hospitalized post-operative patients.

Methods: A prospective research study was conducted in Karachi between November 2021 and April 2022 at the National Institute of Cardiovascular Diseases (NICVD). This study evaluated 157 eligible CVD post-operated patients for pDDIs using Micromedex Drug-Int® and Lexicomp Interact®. The study population in the surgical ward included adult patients at least 18 years (both genders) with at least two drugs prescribed. Micromedex® and Lexi-Interact® interaction databases were used to screen each patient's medication profile for potentially interacting drug pairs. The study obtained approval from the Ethical Review Committee of the NICVD (ERC-117/2021).

Results: Altogether, 157 patients were enrolled in this study, of which 65.6% were male and 34.4% were female. The mean age was 48.93 ± 13.9 years. The highest percentage of surgeries was MVR 34.4%, followed by CABG 19.7%, AVR 17.8%, and DVR 13.4%. In total, 14 drugs were taken by each patient, with a minimum of five. A total of 54.1% of patients received one anticoagulant, while 45.9% received two anticoagulants. Evaluation of the prescriptions showed that 0.1% of patients received drugs classified class X risk, followed by 28% class D, 48% class C, and 23% class B, according to Lexi-Interact®. Of 716 drug-drug interactions screened by Micromedex®, 59.8% were Major, and 40.2% were Moderate interaction pairs. The most frequent major interaction pair was 13% Aspirin-Warfarin, followed by 11.2% Ceftazidim-Warfarin and 10.8% Aspirin-Enoxaparin by Micromedex®. Of 845 interaction pairs screened by Lexi-Interact®, the most frequent pair was Acetaminophen–Warfarin, Aspirin-Warfarin, and Dexlansoprazole-Warfarin 11.2%.

Conclusions: hospitalized cardiac patients were at risk for pDDIs, specifically major and class X risk pDDIs. Awareness of these interactions between healthcare professionals, especially pharmacists, could promote the safety and effectiveness of anticoagulation therapy for hospitalized patients.

Keywords: Drug-drug interactions, cardiovascular disease (CVD), Anticoagulant Warfarin, Heparin, Enoxaparin, Rivaroxaban, Pakistan

NEW ASPECTS OF HYPERSTRUCTURES IN GENETICS

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ABSTRACT

The hyperstructure theory was born in 1934 by F. Marty to a Scandinavian Congress of Mathematicians. This new theory represents a generalization of group theory because a set represents the composition of two elements. In contrast, in group theory, the composition of two elements is just an element.

The hyperstructure theory has many applications in cryptography, graph theory, automata theory, biology, etc. Therefore, this paper applies the hyperstructure theory in a genetic context and analyzes the simple Mendelian dominance. The study of hyperstructures in this context is necessary because the results of the experiments in the case of the monohybrid cross in the pea plant, the dihybrid cross in the pea plant, the inheritance in the Four-o' clock plant, and so on describe hypergroups.

This paper presents a combinatorial study for the distribution of phenotypes, starting with the cases of simple dominance for the dihybrid cross, trihybrid cross, and the 4- hybrid cross. In final, we generalize these results. So, we determined a model for the type and number of phenotypes after several hybridizations.

JUICING UP NEUROPROTECTION: EXPLORING PUNICALAGIN'S POTENTIAL AS A THERAPEUTIC AGENT FOR MITOCHONDRIAL BIOGENESIS IN PARKINSON'S AND OTHER NEURODEGENERATIVE DISEASES

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ABSTRACT

Mitochondrial dysfunction has been implicated in the pathogenesis of several neurodegenerative diseases, including idiopathic Parkinson's disease (PD). Mitochondrial biogenesis, the process of generating new mitochondria, has emerged as a potential therapeutic target for these diseases. Punicalagin, a bioactive compound found in pomegranate, has shown promising neuroprotective effects through its ability to induce mitochondrial biogenesis. This research discusses the therapeutic implications of mitochondrial biogenesis in neurodegenerative diseases, with a focus on PD, and the potential use of Punicalagin as a therapeutic agent. We review the current literature on Punicalagin and its effects on mitochondrial biogenesis and neuroprotection. Furthermore, Punicalagin has been shown to exert anti-inflammatory and anti-apoptotic effects in animal models of neurodegeneration. In addition to its neuroprotective effects, Punicalagin has been shown to improve motor and cognitive functions in animal models of PD. Punicalagin has been shown to exert neuroprotective effects in cellular and animal models of neurodegeneration, including PD. These findings suggest that Punicalagin may have potential as a therapeutic agent for PD and other neurodegenerative diseases through its ability to induce mitochondrial biogenesis and improve mitochondrial function. Preliminary Biochemical assays and *in vitro* studies have been done through pomegranate extract which is having a high content of Punicalagin along with standard Punicalagin. Further research is needed to fully understand the therapeutic potential of Punicalagin and its mechanisms of action in neurodegenerative diseases.

Keywords: Mitochondrial Biogenesis, Parkinson’s disease, Punicalagin

THE DRUG ABUSE DURING COVID 19 AND ITS IMPACT ON MENTAL HEALTH IN YOUTH

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ABSTRACT

Corona Virus hit the world at an alarming rate, first in Wuhan city of China in December 2019 and very quickly it spread throughout the world. People from all the stratus were affected and everything possible became online. To some due to the situation their physical with mental health were disturbed. As a part of recreation or due to stress related to pandemic people including youth started taking illicit drugs. Huge sum of money were spent while procuring the substances. In this study two hypotheses were there, first there was a relationship between drug abuse and its impact on mental health of youth. And the second was there were no significant relationship between drug abuse and its impact on mental health in youth. These two hypotheses basically focused to check relationship between drug abuse and mental health. This is a quantitative research and was conducted on youth and the study sample is patients from Kripa Foundation. And the age range is 18 to 25. Data collection was done with the help of two standardized questionnaires i.e., DAST-10 (Drug abuse screening test) and WEMWBS (The Warwick-Edinburgh Mental Well-being Scale) directly from the patients and there were total 80 participants. Purposive sampling technique was used. The present study was a comparative study therefore; Pearson's correlation statistical technique were used. From the final scoring it had been concluded that there were no significant correlation between the drug abuse and mental health. The relationship between drug abuse and mental health was statistically significant, ($r= 0.0124$, $P<0.05$). Hence, we can say that there were no significant relationship between drug abuse and mental health.

Keywords: Substance Abuse, Drugs, Drug abuse, Mental Health, Youth.

CELLULOSE GRAFTED POLY ACRYLIC ACID DOPED MANGANESE OXIDE NANORODS AS NOVEL PLATFORM FOR CATALYTIC, ANTIBACTERIAL ACTIVITY AND MOLECULAR DOCKING ANALYSIS

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ABSTRACT

Various concentrations of cellulose nanocrystal grafted poly acrylic acid (CNC-g-PAA) doped MnO_2 nanorods (NRs) were synthesized through a hydrothermal process. This work aimed to analyze the influence of CNC-g-PAA (3, 6, and 9 mL) on MnO_2 for catalysis and antibacterial behavior. Various characterization approaches were utilized to investigate the optical, structural, morphological features, and chemical composition of synthesized materials. FTIR results were used to assess the vibrational and rotational modes of the presence of functional groups (O–H, C–O and Mn-O) in synthesized samples. Electronic spectra revealed a bathochromic shift upon doping that led to decrease in band gap energy. The catalytic activity of CNC-g-PAA doped MnO_2 increased gradually with a higher doping ratio owing to a reduction in electron-hole (e^- -h^+) pair recombination. As a result, 9 mL CNC-g-PAA doped MnO_2 is suggested as a valuable and superior catalyst for cleaning the environment and wastewater. In addition, 9 mL CNC-g-PAA doped MnO_2 revealed a significant inhibition area for *Escherichia coli* in comparison to *Staphylococcus aureus* at high and low doses correspondingly. Further, molecular docking studies of these NRs were performed to get insight into the mystery behind these bactericidal activities. (Published in Surfaces and Interfaces, 2023)

Keywords: CNC-g-PAA, MnO_2, Nanorods, Catalytic activity, Antimicrobial activity, Molecular docking analysis

OVARIAN CARCINOMATOSIS MICROENVIRONMENTS INDUCE EPITHELIAL-MESENCHYMAL-TRANSITION AND UP-REGULATE PROTEASE-PROCOAGULANT ACTIVITY IN MESOTHELIAL CELLS

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ABSTRACT

The expansion of carcinomatosis in the peritoneal cavity is poorly documented. Mesothelial cell monolayer covers the peritoneal cavity while its associated organs are the major sites of secondary tumor development in carcinomatosis patients. Modified mesothelial cell layer and their microenvironments can favor fibrin deposition for cancer cell adhesion as proved by scanning and transmission electron

microscopy. The mesothelial cells change their morphology after incubation of the cell with carcinomatosis peritoneal fluids *in vitro*. Epithelial mesenchymal transition (EMT) associated with upregulation of neprilysin, matrix metalloproteinase-2, tissues factor and the new cytokines secretions such as interleukin-6, and 8, hepatocyte growth factor and granulocyte chemotactic protein-2 mRNA analyzed by q-PCR and protein activity. In the same condition, endothelial protein C receptor expression as a natural anticoagulant was decreased. In parallel, carcinomatosis cell clusters extracted from peritoneal fluids were found to be associated with fibrin. Kinetic analysis of cancer cell-fibrin interaction *in vitro* studied by micro cinematography showed that fiber filaments generated from clots inhibited cancer cell adhesion on fibrin clots. These results indicated that fibrin deposit on the peritoneal surface serve as a niche for cancer expansion in carcinomatosis patients.

Keywords: Mesothelial cells, Carcinomatosis, Epithelial-mesenchymal-transition

STRONTIUM-DOPED CHROMIUM OXIDE FOR RHB REDUCTION AND ANTIBACTERIAL ACTIVITY WITH EVIDENCE OF MOLECULAR DOCKING ANALYSIS

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ABSTRACT

The emergence of multi-drug resistance (MDR) in aquatic pathogens and the presence of cationic dyes are the leading causes of water contamination on a global scale. In this context, nanotechnology holds immense promise for utilizing various nanomaterials with catalytic and antibacterial properties. This study aimed to evaluate the catalytic and bactericidal potential of undoped and Sr-doped Cr_2O_3 nanostructures (NSs) synthesized through the co-precipitation method. In addition, the morphological, optical, and structural properties of the resultant NSs were also examined. The optical bandgap energy of Cr_2O_3 has been substantially reduced by Sr doping, as confirmed through extracted values from absorption spectra recorded by UV-Vis studies. The field-emission scanning electron microscopy (FE-SEM) and transmission electron microscopy (TEM) micrographs illustrate that the composition of Cr_2O_3 primarily consisted of agglomerated, irregularly shaped NSs with a morphology resembling nanoflakes. Moreover, the presence of Sr in the lattice of Cr_2O_3 increased the roughness of the resulting NSs. The catalytic activity of synthesized NSs was analyzed by their reduction ability of Rhodamine B (RhB) dye in the dark under different pH conditions. Their antibacterial activity was evaluated against MDR Escherichia coli (E. coli). Sr doping increased antibacterial efficiency against MDR E. coli, as indicated by inhibition zone measurements of 10.15 and 11.75 mm at low and high doses, respectively. Furthermore, a molecular docking analysis was conducted to determine the binding interaction pattern between NSs and active sites in the target cell protein. The findings corroborated antimicrobial test results indicating that Sr-Cr_2O_3 is the most effective inhibitor of FabH and DHFR enzymes. (Published in Frontiers in Chemistry)

Keywords: dye degradation, MDR E. coli, RhB, antibacterial, Cr_2O_3

PHYTOCHEMICAL CONSTITUENTS AND ANTIMICROBIAL ACTIVITY OF METHANOL CRUDE EXTRACT OF *Daniellia Oliveri* STEM BARK

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ABSTRACT

Daniellia Oliveri stem bark is used for the treatment of various ailments in folklore medicine.The research was aimed to determine phytochemical composition, antioxidant and antimicrobial activity of *Daniellia Oliveri* stem bark methanolic extract. Results showed the presence of terpenoids, cardiac glycosides, tannins and saponins which could be the reason for their medicinal, defensive, analgesic, antiviral, anti-bacterial and anti-fungal properties. The presence of tannins may be responsible for its sharp taste. The antioxidant results revealed that the extract has antioxidant property in agreement with its phytochemical constituents suggesting its traditional medicinal usage. It is also understood that, in *Daniellia oliveri* stem bark extract , E. coli was most sensitive to theeffect of the extract at 120mg/ml than any other microorganism at that same concentration and this indicates that the stem bark extract of *D. oliveri* was more active against Gram negative bacteria (e.g. Escherichia coli) than Gram positive bacteria (e.g. Staphylococcus aureus).

Keywords: *Daniellia Oliveri,* stem bark, methanolic extract, phytochemical constituents, antioxidant and antimicrobial activity.

ASSOCIATED RISK FACTORS WITH PREMATURE BIRTH AT MATERNITY HOSPITALS IN MOSUL CITY

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ABSTRACT

Background: Premature birth is a significant public health issue associated with an increased risk of morbidity and mortality for newborns. The study aimed to identify the risk factors and improve interventions.

Method: This study utilized a descriptive, cross-sectional design from November 17, 2022, to March 30, 2023. A simple random sample of 234 women was selected from three maternity hospitals in Mosul City. Structured interviews were conducted, and data were analyzed using SPSS version 26 to describe and analyze findings.

Results: Study participants had a mean age of 26.35 years and gave birth at a mean gestational age of 31.42 weeks following a mean interpregnancy interval of 17.88 months. The majority had undergone normal vaginal deliveries and were multiparous. A significant proportion reported urinary and genital tract infections (59.0%), excessive uterine activity (82.1%), and vaginal infections (65.0%). A highly significant correlation was found between interpregnancy interval and gestational age at birth and the birth weight of neonates.

Conclusion: The study concludes that infections of the urinary and genital tracts, excessive uterine activity, and vaginal infections are significant risk factors for neonatal outcomes, specifically gestational age, and birth weight. Additionally, the interpregnancy interval is a notable predictor of these outcomes.

Recommendations: To enhance neonatal outcomes, the study recommends implementing preventive measures such as routine screening and treatment of infections, alongside counseling women on the importance of appropriate interpregnancy intervals.

Keywords: Prematurity birth, risk factors, newborns, maternity hospitals.

NATURAL OCCURRING RADIONUCLIDES GROSS ALPHA AND BETA ACTIVITY CONCENTRATION AND ANNUAL COMMITTED EFFECTIVE DOSES OF SOME GHANAIAN MEDICINAL PLANTS

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ABSTRACT

The average activities and their corresponding annual committed effective dose due to the major alpha and beta-emitting radionuclides in the naturally occurring Uranium and Thorium series were measured for nine commonly used Ghanaian medicinal plants via Canberra iMatic™ Automatic low background gas-less gross alpha-beta counter. The sample preparation methods were dependent on the methods by which these medicinal plants are administered. The average gross alpha activity ranges from 11.73±0.61 Bq/kg to 132.67±7.22 Bq/kg in the raw sample of *Lippia multiflora* and the ethanol extraction sample of *Alstonia boonei* respectively. Likewise, the average gross beta activity ranges from 124.34±11.28 Bq/kg to 790.58±13.19 Bq/kg in the raw sample of *Cassia sieberiana* and the ethanol extraction sample of *Nauclea latifolia*. The average gross alpha activities were far less than the average gross beta activities in the samples. The average annual committed effective dose due to gross alpha and beta ranges from 0.2- 0.8 mSv with an average value of 0.3 mSv. The activities varied across the various forms of sample preparation. That is the average gross activity in alcohol extraction > Infusion > Brewed > Raw.

OCCURRENCE OF EIMERIA SPECIES IN NATURALLY INFECTED DOMESTIC RABBITS (ORYCTOLAGUS CUNICULUS) IN NORTH OF KARBALA PROVINCE, IRAQ

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ABSTRACT

Coccidiosis has an economic impact for poultry and livestock industries. The current study examined the prevalence of Eimeria infections in domestic rabbits in musaib city, North of karbala province. Totally, 48 faecal samples were collected from different markets in different regions of the city. Each faecal sample was taken directly then transferred to lab subjected to oocyst detect. The diagnosis of infection depends on morphological characteristic features. The samples containing Eimeria species were identified and confirmed by sporulated oocysts were morphologically identified microscopically too. The total prevalence of coccidial infections was 70.8% (34/48). No significant was found between male and female at P≥0.05. Thirty-four rabbit infected with *Eimeria's* species were present and identified from oocyst features. *Eimeria staidae* and *Eimeria magna* were the most prevalent species (25% and 21%). The results referred to the prevalence and distribution of coccidiosis is high among the rabbit population in musaib city, North of karbala province. In conclusion, the epidemiological result must be taken into consideration in order to minimize the economic losses caused by coccidiosis.

Keywords: *Eimeria*, Rabbits, Prevalence, Iraq.

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DEVELOPMENT OF NOVEL NANO PHOTOPROTECTIVE FORMULATION CONTAINING *SPINACIA OLERACEAE*

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ABSTRACT

The advantages of environmentally safe and humane herbal-based sunscreen products against ultraviolet (UV) radiation require more study. Researchers were concentrating more on herbal photoprotective formulations due to the toxicity of synthetic compounds in photoprotective medicines. Skin retention from the photoprotective agent can vary significantly by enhancing solid lipid nanoparticles (SLN). The study aims to assess the photoprotective potential of sunscreen cream containing SLN loaded with spinach (*Spinacia oleracea*). The spinach-loaded SLN was developed using a solvent emulsification process. Different characterisation methods for reformulated SLN were used. The most effective formulation was incorporated into cream and evaluated for its photoprotective activity. The morphological properties of the prepared SLN were revealed by the pictures produced by scanning electron microscopy (SEM). The sunscreen cream's viscosity, spreadability, extrudability, and release rate were all within acceptable bounds. The formulation's sun protection factor (SPF) was reported to be 15.9 in *in vitro* testing and 14.75 in vivo testing. According to the findings, the produced formulation has good photoprotective activity. There were no discernible changes in the parameters during the expedited stability tests. Our research showed that SLN loaded with spinach might be used in cosmetic formulations as a photoprotective agent.

Keywords: Photoprotective, *Spinacia oleracea*, Solid lipid nanoparticles, Sunscreen cream

POTENTIAL THERAPEUTIC EFFECT OF ASHWAGANDHA (*WITHANIA SOMNIFERA*) EXTRACT AGAINST NEUROLOGIC COMPLICATIONS OF INDUCED DIABETES IN MALE RATS

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ABSTRACT

The current study evaluates the ashwagandha supplement's therapeutic effects against diabetes induced neurologic complications, inflammation and oxidative damage in male rats. Diabetic rats were given ashwagandha extract orally once a day for 6 weeks at doses of (100&200 mg/kg BW). At the conclusion of the treatment, the behavioral tests (HPT, NBT and FST) were conducted. Brain OS markers (MDA, SOD, CAT, and GSH) and serum pro-inflammatory cytokines (TNF-α, IL-1β, and IL-6) as well as AChE and serotonin levels were determined. The histopathological analysis of brain (cerebral cortex and cerebellum) and sciatic nerve was conducted. The administration of ashwagandha extract to diabetic rats showed significant reversal of disturbed antioxidant status and oxidative damage. Response latencies during HPT were significantly increased while both crossing time and immobilization time significantly decreased during NBT and FST, respectively under ashwagandha root extract treatments. A significant increase in SOD, CAT, GSH, and serotonin levels was observed while there was a significant decrease in serum TNF-α, IL-1β, IL-6, and AChE in both ashwagandha treated diabetic groups. Furthermore, the histopathological changes in brain and sciatic nerve sections were both reversed by ashwagandha root extract. As a result of our research, ashwagandha root extract, which is rich in phenolic compounds, modulates both OS and inflammation markers.

Keywords: Diabetes; Ashwagandha; Oxidative stress; pro-inflammatory cytokines; Depression; Brain; Sciatic nerve

THE NEED FOR THE KNOWLEDGE OF ADOLESCENCE PSYCHOLOGY IN DAILY LIFE

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ABSTRACT

Adolescence, in line with the World Health Organization, can be defined as a period in a person's life from the age of ten to nineteen. This stage of adolescence can very well be described as a journey from childhood to young adulthood. It can further be described as a testing time of transformation, a period where one shapes his or her personality, discovers his or her traits and skills. It is a stage of confusion, challenges, doubts and fears making it difficult for the adolescents to both understand and be understood by others as their brains differ fundamentally from the young children and the adults. It is very important for the parents, teachers and elders in the family and society, who fall into the adults' category, to understand the psychology of the adolescents to help come out of their challenges and lead a successful life. The behavioural problems of the adolescents, in particular their rebellious behaviour, is a common subject of concern among the teachers, parents and the adults. The knowledge of adolescent psychology helps us to understand and cater to the unique mental needs of the adolescents and also help the come out of the problems they face. Various psychologists and psychiatrists, down the ages, have come up with various theories and concepts to deal with the challenges in the adolescents' behavioural problem. This paper aims to analyse the various problems faced by the adolescents and the challenges in their relationship with the adults and shows how, with the help of the knowledge of adolescent psychology, the adults can help the young people to overcome these problems and challenges and help them emerge out as more responsible, successful and mature adults.

THE GUT-BRAIN-SKIN AXIS IN ACNE: IMPACT OF POLENODERM

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ABSTRACT

Background It is increasingly believed that the interaction between skin microbes and host immunity plays an important role in acne. Acne also has close connections with the gastrointestinal tract, and many argue that the gut microbiota could be involved in the pathogenic process of acne. The emotions of stress, have been hypothesized to aggravate acne by altering the gut microbiota. The presence of a gut-brain-skin axis that connects gut microbes, oral probiotics, and diet, currently an area of intense scrutiny, to acne severity. This study concentrates on the skin and gut microbes in acne, the role that the gut-brain-skin axis plays in the immunobiology of acne, and newly emerging microbiome-based therapies that can be applied to treat acne.

Obiective The purpose of this study was to compare the diversity of the skin microbiota in acne patients before and after taking Polenoderm.

Materials and methods A longitudinal cohort study was performed on 20 participants with moderate to severe facial acne with no recent use of oral and topical antibiotics/retinoids.

Results Hence, it is crucial to understand Polenoderm impact on the acne skin microbiota which is thought to be perturbed, our study provides insight into the skin microbiota in acne and how it is modulated by Polenoderm and diet.

Conclusion Acne also has close connections with the gastrointestinal tract, and many argue that the gut microbiota could be involved in the pathogenic process of acne. As understanding of the microbiome in healthy skin and the pathophysiology of acne continues to develop, new therapeutic targets are arising.

Keywords: acne, gut-brain-skin axis microbiota, Polenoderm, diet

INVESTIGATING THE PRACTICE OF DENTAL HYGIENE AMONG STUDENTS OF INTEGRATED TSANGAYA MODEL SCHOOLS IN KANO STATE NIGERIA

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ABSTRACT

The purpose of this study is to investigate the practice of dental hygiene among students of integrated Tsangaya model schools in Kano state, Nigeria. A cross-sectional survey was conducted from 22nd March to 3rd April, 2023 among the resident students of integrated Tsangaya model school in Kano state. Questionnaire was administered through a well structured interview, to the participants. Using the simple random sampling technique, 273 participants were recruited for the study, comprising of 234(99.7%) males and 39(14.3%) females. The questionnaire comprises of two parts; part 1 consists of the demographic information of the participants and part 2 consists of the information about the dental hygiene of the participants. The results shows that 41% (n=111) clean their teeth once daily, 46% (n=126) clean their teeth twice daily, while 13% (n=36) clean their teeth more than twice daily. This study shows that there is significant high level of dental hygiene practice among students of integrated Tsangaya model schools in Kano state. It is recommended that dental health should be incorporated into school health program, in order to sustain and maintain the high level of practice of dental hygiene among students of integrated Tsangaya model schools and other similar institutions.

Keywords: DENTAL HYGIENE, HEALTH, TSANGAYA MODEL SCHOOL

LIFE SCIENCES

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ABSTRACT

Life Sciences is an international journal publishing articles that emphasize the molecular, cellular, and functional basis of therapy. The journal emphasizes the understanding of mechanism that is relevant to all aspects of human disease and translation to patients.

The five central themes of biology are structure and function of cells, interactions between organisms, homeostasis, reproduction and genetics, and evolution.

The simplest way to define life sciences is the study of living organisms and life processes. At NCBiotech, we see it as science involving cells and their components, products and processes. Biology, medicine and agriculture are the most obvious examples of the discipline.

The scope of life sciences is as vast as the variety of life on Earth: mathematical biology, developmental biology, molecular and cell biology, parasitology and virology, microbiology and immunology — the list goes on.

Life Sciences is the study of living organisms, ranging from the very tiny world of microbiology and genetics to the physiology and zoology of the world's great mammals.

SECONDARY METABOLITE CONTENT AND ANTI-HYPERGLYCEMIC EFFECT OF METHANOL LEAF EXTRACT OF *Momordica charantia*

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ABSTRACT

Diabetes mellitus is a common endocrine disease that manifests due to defects in insulin secretion and/or insulin action. The aim of this study is to investigate the secondary metabolite content and anti-hyperglycemic effect of methanol leaf extract of *Mormodica charantia* (*M.charantia*) on streptozotocin induced diabetic albino rats. Qualitative and quantitative phytochemical analysis was conducted according to standard protocol. Diabetes was induced in experimental animals by intraperitoneal injection of 60mg/kg BW of streptozotocin in ice cold citric acid buffer. The kidney function parameters (urea, creatinine and electrolytes) was assayed using standard reagent kits. The qualitative phytochemical analysis of the methanol leaf extract of *M.charantia* showed the presence of phenols, alkaloids, saponins, tannins, flavonoids and glycosides. Quantitatively, Phenol has the highest concentration (52.75 ± 0.05mg/g) while glycosides has the lowest concentration (0.05 ± 4.91mg/g). The methanol extract of *M.charantia* significantly lowered the elevated blood glucose level in diabetic rats after two weeks of oral administration. More also, there was a significant amelioration of the altered kidney function parameters in diabetic rats. In conclusion, the methanol extract of *M.charantia* has anti-hyperglycemic effect.

Keywords: *Mormodica charantia*, Diabetes, kidney, Phytochemicals

THE PSYCHOMETRIC PROPERTIES OF THE MALAY VERSION OF THE GAMING MOTIVATION INVENTORY (M-GMI) IN THE CONTEXT OF MALAYSIAN YOUNG ADULTS

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ABSTRACT

Identifying the motives behind gaming will help researchers and game developers understand how games can attract or deter players. Also, it will help to understand problematic gaming. The Gaming Motivation Inventory has not been translated and validated yet into Malay language. Thus, this study aims to evaluate the psychometric properties of the Malay version of this inventory and examine the motivational factors underlying Internet Gaming Disorder among young adults in Malaysia. A forward-backward translation technique was applied. Two hundred Malaysian young adults between the ages of 18 and 30 years (mean = 21.89, standard deviation = 1.57) participated in an online survey. By using principal component analysis, the results show the Malay version of the Gaming Motivation Inventory measures 18 dimensions with an overall total of 68 items and possesses good psychometric properties. It has significance associated with other constructs. Furthermore, eight dimensions showed a significant positive association with Internet Gaming Disorder symptoms, from r = 0.15 (competition) to 0.26 (cooperation) reported in our sample. Furthermore, a few factors showed correlation with age and time spent in gaming session. This preliminary finding of this study demonstrated the translation and adaptation involved in measuring gaming motives by using the Malay version of the Gaming Motivation Inventory among young adults. We recommend that future studies analyse this inventory by using other factor analysis techniques and a large sample size to develop a more acceptable inventory.

Keywords: GMI, motives, gaming, young adults, IGD

STUDY ON A NATURAL CREAM WITH EXTRACT OF MOUNTAIN TEA OF ALBANIA

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ABSTRACT

Introduction. Albanian mountain tea *(known as Sideritis, ironwort*) is rich in polyphenols and has remarkable antioxidant properties. It is widely used as infusion with excellent properties in improving the immune system.

Objectives This study investigated the antioxidant value of mountain tea (Sideritis) as part of a coldcream for topical use.

Materials and methods: The production of cold creams were carried out in the laboratory using the basic component such as mountain tea infusion 43.1%, stearic acid at 8.6 %, white wax 0.9 %, cetyl alcohol 6.9 %, sunflower oil 34.5 %, glycerin 2.6 %, triethanolamine 3.4 %.

The cream produced were evaluated for the antioxidant content, via Scan UV-Visible Spectrophotometer (Varian 50), quarz Model Assistent 10mm test tubes, powdered EGCG standard, organoleptic characteristics, pH, homogeneity, rheological characteristics (Fungilab viscometer and extensiometer) and stability over time (accelerated aging method).

The result obtained from the analysis showed that the natural coldcream with mountain tea extract has antioxidant activity as well as moisturizing and smoothing effect on the skin. The pH is stable at 7.6-7.7 for 2 months, viscosity range from 10.0 Pa.s. up to 11.2 Pa.s with 100 RPM.

Conclusion It was achieved the preparation of a natural coldcream with pleasant organoleptic characteristics, without preservatives. It has valuable antioxidant activity. Based on the rheological control results it shows structural viscosity and is stable for at least 8 weeks after opening. It is recommended to be stored under 25°C, away from light.

Keywords: coldcream, mountain tea, green tea, antioxidant, stability

KNOWLEDGE, ATTITUDE AND PRACTICE OF RELIGIOUS LEADERS ON COVID-19 IN KANO: A COMPARATIVE SURVEY IN NORTH-WESTERN NIGERIA

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ABSTRACT

Background Religious leaders in northern Nigeria serve as gatekeepers to the community and always maintain high dignity and influence. Understanding their knowledge, attitude and practice on COVID-19 have a great impact on policy making and control measures against the diseases.

Methods This survey was conducted to determine knowledge, attitude and practice of religious leaders in Kano. Participants filled researcher-validated questionnaire online and offline. A total of 130 religious leaders filled the questionnaire (27 online; 103 offline).

Results Result shows that 96.5% of respondents had good knowledge of Covid- 19, 70% had good attitude and 75% had good practices towards prevention of the pandemic. It was recommended that religious leaders could be used as a tool for campaign against the spread Covid-19 and related diseases.

Conclusion Religious leaders have good knowledge, attitude and practice of Covid-19 preventive measures and could therefore be used as tools for effective campaign against its spread.

EVALUATION OF 'COMMUNITY-POLICY' STRATEGY IN PREVENTION OF HIV/AIDS IN NGURU LOCAL GOVERNMENT AREA, YOBE STATE, NIGERIA

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ABSTRACT

There is good news about Human Immunodeficiency Virus (HIV) prevention. Yet strengthening HIV preventive measures by involving communities and their stakeholders remains an urgent global health priority in ending the epidemic. The research: "Evaluation of 'Community-Policing' Strategy in Prevention of HIV/AIDS", determined the incidence of HIV/AIDS infection among the most vulnerable groups, pregnant women and children, attending Federal Medical Centre (FMC) Nguru, from 2012 – 2018. The aim is to evaluate the impact of the 'community-policing' strategy–a community based intervention restraining marriage between couples of opposite HIV status. The incidence of HIV has experienced robust decline (6.9 to 4.3) among pregnant women from 2014-2015 on introduction of the strategy, and continued to (1.4) at 2018. Based on the study, by 2020, FMC Nguru would record zero incidence among preganant women attending for antenatal. More interventions are needed to address the anomalies found in children and the general population. As for pregnant women, it will soon be over.

Keywords: Evaluation, Community-policy, Prevention, Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS)

EFFECT OF NUTRITION ON PREECLAMPSIA A MULTICENTRE CASE-CONTROL STUDY IN ETHIOPIA

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ABSTRACT

Background: Pre-eclampsia is one of the most commonly encountered hypertensive disorders of pregnancy, accounting for 20-80% of maternal mortality in developing countries, including Ethiopia. For many years, diet has been suggested to play a role in pre-eclampsia. However, the hypotheses have been diverse with inconsistent results across studies, and this has not been studied in Ethiopia.

Objectives: The objective of this study was to determine the effect of dietary habits on the incidence of pre-eclampsia in Bahir Dar, Ethiopia

Methods: A prospective multicentre unmatched case-control study was conducted among 453 (151 cases and 302 controls) pregnant women attending antepartum or intrapartum care in public health facilities of Bahir Dar City. The interviewer conducted a face-to-face interview, measured the mid-upper arm circumference (MUAC,) and collected the mid-pregnancy hemoglobin level from clinical notes using a standardized and pretested questionnaire. Epi Info 3.5.3 was used for data entry and cleaning, while IBM SPSS Statistics 20 was used for data analysis. Backward stepwise unconditional logistic regression analysis was employed to determine the strength of the association of predictive variables with the outcome variable and to control for the effect of confounding variables. A P-value ≤0.05 was considered statistically significant.

Result: For every 1-cm increase of MUAC, there was an increase in the incidence rate of pre-eclampsia by a factor of 1.35 (adjusted odds ratio (AOR)=1.35, 95% confidence interval (CI): 1.21, 1.51). A higher incidence of pre-eclampsia was found in women who reported to have consumed coffee daily during pregnancy (AOR=1.78, 95% CI: 1.20, 3.05). Similarly, for women who had anaemia during the first trimester, the incidence of pre-eclampsia was 2.5 times higher than their counterparts (AOR=2.47, 95% CI: 1.12, 7.61). This study also revealed consumption of fruit or vegetables at least three times a week during pregnancy to be protective against pre-eclampsia (AOR=0.51, 95% CI: 0.29, 0.91; AOR=0.46, 95% CI: 0.24, 0.90, respectively). In addition, compliance with folate intake during pregnancy has shown a significant independent effect on the prevention of pre-eclampsia in this study (AOR=0.16, 95% CI: 0.08, 0.29).

Conclusion and recommendation: Adequate vegetable and fruit consumption and compliance with folate intake during pregnancy are independent protective factors against pre-eclampsia. On the other hand, higher MUAC, anemia, and daily coffee intake during pregnancy are risk factors for the development of pre-eclampsia. Audience-specific education and promotion of the use of the protective factors identified in this study should be prioritized. The risk factors identified can be used for prediction

and early diagnoses of pre-eclampsia allowing timely interventions to be performed to minimize deaths associated with severe pre-eclampsia/eclampsia.

Keywords: Anemia; Hypertension; MUAC; Preeclampsia.

THE ANTI-DIABETIC POTENTIAL OF *CRATEROSIPHON SCANDENS* LEAVES ON ALTERED HAEMATOLOGICAL AND BIOCHEMICAL PARAMETERS OF ALLOXAN-INDUCED DIABETIC RATS

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ABSTRACT

Diabetes mellitus (DM) is one of the most common endocrine disorders highly represented by hyperglycemia, lipidemia, and oxidative stress. The search for alternative and complementary therapies for DM particularly from plant sources continues; since existing synthetic drugs are unable to effectively control all pathophysiological manifestations of DM, and the undesirable complications which may arise. The aim of the study was to investigate the antidiabetic property of ethanol extract of *Craterosiphon scandens* leaves on alloxan model of diabetes and its associated complications in rats using standard biochemical methods. Forty-eight (48) male Wistar rats (140-185 g) were randomized into 6 groups (n = 8). Groups 1 and 2 served as normal and positive controls, respectively. Diabetes was induced in test groups (2-6) using 150 mg/kg body weight (b.w) alloxan monohydrate. Rats in groups 4-6 received oral doses of 200, 400 and 600 mg/kg b.w. *Craterosiphon scandens* leaves, respectively, for 21 days. Group 3 rats received 5 mg/kg b.w glibenclamide. Extraction of 1,500 g ethanol extract *Craterosiphon scandens* leaves yielded 52.10 g (3.47%). The acute toxicity test showed that the extract was not toxic up to 5000 mg/kg b.w. The phytochemical screening reveals high quantity of phenols, flavonoids and terpeniods. The α-Amylase and α-Glucosidase inhibition assay exhibited activities at 1.0mg/ml of the *Craterosiphon scandens* of the plant leave. The results revealed a significantly ($p<0.05$) decreased in glucose level in the treated groups compared positive control (group 2). There were significant ($p<0.05$) increases in packed cell volume, haemoglobin concentrations, and red blood cell count of the treated groups while the white blood cell count decreased ($p<0.05$) significantly in the treated groups when compared to the positive control group. Similarly treatment with *Craterosiphon scandens* leaves significantly ($P < 0.05$) resulted in remarkable improvements in altered biochemical and histological parameters of diabetic rats.

Keywords: *Craterosiphon scandens*, Alloxan, Biochemical parameters, α-Amylase and α-Glucosidase, Histopathology

THE IMPORTANCE OF NICKEL TITANIUM IN THE ENDODONTIC TREATMENT: A SCIENTIFIC GUIDED CLINICAL APPROACH

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ABSTRACT

Root canal treatment (RCT) is one of the most common dentistry practices. Indeed, this kind of treatment allow not only to take away the pain from irreversible pulpitis but also to solve periapical inflammation such as granulomas and cysts. The RCT consist in different "surgical" phases: opening of the root chamber, scouting of the canals, Coronal flaring, Glide path establishment, Shaping of the canal, cleaning and filling. The introduction of Nickel-Titanium (NiTi) in the routine daily practice has completely changed the root canal treatment. Despite this world changing introduction, it is still controversial the use of NiTi in root canal shaping. Indeed, while the number of rotary instruments available on the market, with different mechanical characteristics thought to challenge every clinical situation. Despite the current literature highlighted the uncountable advantages of NiTi files over the traditional stainless steel (SS) files, a lot of Endodontist and General Practitioner still use them. Indeed, SS files are still mainly used at least in the first phases of the root canal treatment, such as scouting and coronal flaring. This procedure is often motivated by a higher safety of the SS files, which less frequently are broken inside the root canal. Despite this safety idea could be true especially in the past, the SS files could lead to several problems such as ledge, zipping and perforation. These problems often lead to the failure of the root canal treatment. Moreover, the introduction of thermal treatments of the NiTi drastically increased the safety of the rotary files, reducing the separation percentage inside the root canal. For these reasons, the authors created a different approach to the shaping procedures of the root canal treatment. This new protocol, so called Only Rotary Endo (O.R.E.) Protocol, is based on the current literature, leading to an Evidence Based Dentistry. This allows to split the shaping procedures into different phases, based on the anatomy difficulties of the canal. This approach allows to use the most proper instrument for the different phases of the treatment, matching the inevitable anatomical difficulties with the properties of the instrument used to challenge it.

Keywords: Endodontics, Root Canal Treatment, NiTi Rotary Files

EVALUATION OF MILK PRODUCTION OF CAMEL QUALITATIVELY AND QUANTITATIVELY DURING THE FIRST STAGE OF LACTATION

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ABSTRACT

camel is correspond as an important source for people in the arid and semi-arid regions where he can produce and reproduce in hard conditions of live. Camel's milk is rich in health-beneficial substances, such as bioactive peptides, lactoferrin, zinc, and mono and polyunsaturated fatty acids. These substances could help in the treatment of some important human diseases like tuberculosis, asthma, gastrointestinal diseases, and jaundice. the present study aims to evaluate milk production qualitatively and quantitatively of fifteen dairy females camels in a semi-intensive camel dairy farm of tdajen daily plant in el oued region in the fisrt stage of lactation; quantitatively by weighting the milk of each camel and qualitatively by using lactoscan milk analyzer. the mean of the quantity of milk per day can reach 10,6 L and the mean of the percentages of the solids -not- fat, fat, protein, lactose, salts, ph, and density are 9,4% , 3,2% , 3,4% , 5,2% , 0,76% , 6,5% , 33,9% respectively. this results show that the milk production is important during the fisrt stage of lactation. this significant milk production insure that the camel have an importanat place in the sectore of milk production and that camel milk has a hight nutrition value.

Keywords: camel ,qualitatively ,quantitatively , fisrt stage, lactation.

THE CHARACTERIZATION OF MILKING FEMALE CAMEL IN CAMEL DAIRY PLANT

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ABSTRACT

camel is considered as one of the most important and ecologically harmless domesticated animals in the dry region of asia and africa.the morphology characters play an essential role in the description of milking animal and it is considered as parameters to select milking females. the present study aims to make the measurement of 15 milking female camel in a semi-intensive camel dairy farm of TDAJEN daily plant in el oued region during lactation period. the measurements that we did are head length, muzzle circumference, neck length, neck circumference, hump height, height at withers, chest circumference, hump circumference and body length and it done by the meter in a standing position with a raised head . the main of the measurement in centimeter were 44,33 , 46,8 , 56,4, 97,53 , 186,8 , 231,06 , 141,8 , 178,8 and 192,46 for head length , muzzle circumference , neck circumference , neck length , chest size , hump circumference , body length , height at withers and hump height respectively .we can use this result to know the characters of milking female camel , and also is essential for planning improvement of genetics characters, sustainable utilization, conservation strategies, and breeding programs for a breed.

Mots clés: Morph metric, characterization, female camel, milking, lactation.

APTAMERS: A PROMISING TOOL AGAINST VARIOUS DISEASES AND THEIR APPLICATIONS

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ABSTRACT

Aptamers have started to transition from fundamental research to a variety of industrial uses in the past ten years. The creation of diagnostics is more common than the development of clinical applications since improving the in vivo stability and pharmacokinetics of aptamers for diagnostic tests doesn't require significant modification. The effectiveness of creating aptamers for commercially appealing targets has been improved thanks to the advancements in vitro selection technology (SELEX) due to the growing emphasis. Many diseases, including Mycobacterium TB, Treponema pallidum, Novel Coronavirus, HIV, Mucor, and others, revealed substantial menace to people's well-being and placed significant socioeconomic encumbrance on society. Hence, the initial, as well as precise diagnosis of the pathogen, is crucial for prompt and successful therapy. Due to a lack of reliable probes for identifying the biological markers of infections, detecting human infectious ailments at the molecular as well as nanoscale has been extraordinarily perplexing up to this point. Via the selective growth of ligands by exponential enrichment, a group of plastic oligonucleotides with high specificity and sensitivity known as aptamers are tested in vitro (SELEX). The range of aptamer application situations has expanded significantly with the continued advancement of SELEX-based aptamer screening technologies. This paper reviews the evolution of nucleic acid aptamers in biomedicine with a particular emphasis on how they are used to diagnose infectious diseases. A growing number of pharmaceutical aptamers are currently the subject of preclinical studies or clinical trials. This article discussed the creation and evaluation of therapeutic aptamers for the treatment of various illnesses, including coronavirus. This review primarily focuses on approaches to overcome obstacles impeding the widespread deployment of aptamers in diagnosis and therapy, as well as tactics that may greatly expand the range of aptamer use.

Keywords: Aptamers, Therapeutic aptamers, Biomedicine, SELEX-based aptamer, COVID-19.

EVALUATION OF PHYTOCHEMICAL, MINERAL AND VITAMIN C CONTENTS OF RADISH (*Raphanus sativus* L.) ROOTS AS INFLUENCED BY PHOSPHORUS FROM POULTRY MANURE

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ABSTRACT

Radish (*Raphanus sativus L.*), is an annual crop grown for its large succulent taproot and has been reported to be rich in phytochemicals. This pot experiment therefore investigated the effects of different rates of phosphorus from poultry manure on the phytochemicals, minerals and vitamin C contents in the radish roots. The experiment was laid out in completely randomized design (CRD) with treatments consisted of 0, 10, 20, 30 and 40 kgP/ha of Poultry manure replicated three times. Fresh sample of radish roots were collected from the treated plots and subjected to laboratory analysis for phytochemical, mineral and Vit C contents. The data obtained were subjected to Analysis of Variance (ANOVA) and the significant mean were separated using Duncan Multiple Range (DMR) test at 5 % probability. The result shows that phytochemical, mineral as well as vitamin C contents of radish roots responded to different P rates. The 30 kgP/ha resulted into the highest saponin (0.319%), tannin (0.006%), flavonoid (0.004%) and alkaloid (0.264) although not significantly different from other P rates but better than the control. Also, 30 kg P/ha treatment resulted into highest K (244.05 mg/100g), Ca (31.39 mg/100g), P (28.30 mg/100g), Zn (0.66 mg/100g) and Fe, (0.78 mg/100g) but not significantly different from 40 kgP/ha and other rates in some cases but better than the control in all. The 30 kg P/ha treatment also resulted into highest Vitamin C content of radish root () although not significantly different from other treatments. Thus, phosphorus at 30 kg P/ha could be necessary on a soil of low phosphorus level for radish production to optimize Phytochemicals, minerals and vitamin C contents.

Keywords: medicinal crop, organic soil amendment, phosphorus, phytochemical property

THE POTENTIAL OF RUMEX OPTUSIFOLIUS AS AN ANTIINFLAMMATORY AGENT

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ABSTRACT

Inflammation serves as a typical homeostatic response of the body, aiding in self-repair from cellular damage. However, the effects of inflammation can cause discomfort, necessitating the use of medications like nonsteroidal anti-inflammatory drugs (NSAIDs) to alleviate it. *Rumex optusifolius*, also known as broad-leaved dock, has been used for centuries in traditional medicine to treat various ailments from digestive issues to skin conditions such as diabetes, various infectious diseases, diarrhea, jaundice, and inflammatory diseases. It has antioxidant and antimicrobial effects as well as anti-allergic and neuroprotective. One of its most notable properties is the ability to act as an anti-inflammatory agent. The objective of this study is to explore the anti-inflammatory potential of *Rumex optusifolius* using computational approaches such as PyRx and AutoDock Vina. The molecular docking analysis was conducted on three enzymes, including cyclooxygenase-1 (COX-1), cyclooxygenase-2 (COX-2), and nuclear factor kappa beta (NF-κB), which are suspected to contribute to inflammation. This study has shown that the plant contains compounds that can reduce inflammation by inhibiting the production of pro-inflammatory cytokines. These properties make it potentially useful of *Rumex optusifolius* as a medicinal plant, while more research is needed to fully understand the plant's mechanisms of action.

Keywords: Rumex optusifolius, anti-inflammatory, PyRx, AutoDock Vina

A RARE CASE: TRACHEOESOPHAGEAL FISTULA DUE TO NASOGASTRIC TUBE

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Introduction/Purpose

In the intensive care unit, all patients with an intact gastrointestinal system and without an obstacle to feeding should be fed as soon as possible (1, 2). Nasogastric tube is used as the first choice in most patients. Since the mortality and morbidity related with nasogastric tube complications are quite low, they are usually ignored. In this article, we report a patient who developed tracheoesophageal fistula (TEF) due to nasogastric tube and was treated endoscopically.

Case Report

A 60-year old male patient presented to emergency department with blurring of conscious. Following exeminations revealed a subarachnoid hemorrhage. The patient who was intubated due to low GCS and admitted to the intensive care unit. A NG tube was inserted and no complications were observed. On the 13th day of hospitalization, the bag was found to be filled with air when the residue was checked. TEF was detected in the proximal esophagus (17 cm after the anterior incisors) in the esophagoscopy performed with suspicion of TEF (Fig. 1). The detected fistula was closed with 4 hemoclips (Fig. 2). There was no air leakage in the patients controls.

Discussion

TEF is a serious clinical condition which is usually iatrogenic and has mortal complications. In our case,

Fig 1. *TEF seen at 17 cm from the anterior incisors.*

Fig 2. *The detected fistula was closed with 4 hemoclips.*

the most possible cause was considered to be NG tube because of the linear lasered appearance and location of the fistula. Tracheabronchopleural complications of NG tube have been reported between 0.3% and 8%. These complications were evaluated as atelectasis, pneumonia, pulmonary abscess, pneumothorax and sepsis. NG tube-related TEF is considerably rare and has only been reported in a few cases.

Conclusion

As seen in our case, acute complications can take weeks to develop. Evaluation of the complications and their causes is crucial for the success of the clinic.

Keywords: Complication, Intensive Care Unit, Nasogastric tube, Tracheoesophageal fistula

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ASSESSING THE CURRENT STATUS OF MEN'S FUTSAL FOOTBALL TRAINING MOVEMENT IN HAI CHAU DISTRICT, DA NANG CITY

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ABSTRACT

Based on the conventional research methods in the field of physical education, the study assessed the current status of men's futsal football training movement in Hai Chau district, Da nang city. Study' result propsed solutions to improving the effectiveness of the Futsal football movement in Hai Chau district, Da Nang city.

Keywords: Solution; Movement; Futsal football; Hai Chau district, Da Nang city

STUDY OF THE CAUSES OF NEONATAL MORTALITY IN THE ABU ALI SINA REGIONAL HOSPITAL IN BALKH PROVINCE IN THE FIRST QUARTER OF 2021

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ABSTRACT

Introduction: The neonatal period is a new period after birth that is characterized by transition to extrauterine life and rapid growth and development, has its own physiology and health problems, and has a high risk of mortality. The mortality rate varies according to the access and quality of health and medical services in different countries, and it is necessary to investigate these factors. Therefore, identifying the main causes of neonatal mortality provides the basis for proper planning to strengthen the care systems for newborns, pregnancy, and childbirth. This study was launched to determine the main causes of neonatal mortality in Ibn Sina Regional Hospital in Balkh Province, Afghanistan.

Methodology: The present study is applied research in terms of purpose and descriptive-analytical in terms of research method. The statistical population of this research includes the neonates admitted to the Balkh regional hospital in the 1st quarter of 2021. The data was collected from the library and from the field, and to collect the data, the medical records book and the files of deceased neonates were used and examined in the field method.

Findings: The findings of this study show that among the 1092 hospitalized babies, 125 died, accounting for 11.44%, and the most common causes were sepsis (84%), low birth weight or very low birth weight (49.6%), birth asphyxia (47.2%), prematurity and its complications (41.6%), and RDS (29.6%). Out of a total of 125 cases, 18 were also born with anomalies such as CHD, which constitutes 14.4%.

Conclusion: In the center where this study was conducted, it shows that the neonatal mortality rate is still high and that the main cause of death is preventable and treatable. Early diagnosis, isolation of infectious patients, correct distribution of oxygen, and the availability and access of health personnel to urgent and routine medicines and machines that are necessary for newborn care will most likely reduce the frequency of newborn deaths.

Keywords: Newborn, sepsis, prematurity, mortality, asphyxia

Lamium SPECIES AS A NATURAL ANTIMICROBIAL AGENT AND SOURCE OF ANTIOXIDANTS

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ABSTRACT

People have used plants or plant parts for different purposes for centuries. Just as they have been used as a source of nourishment, they have also been used for healing. So many studies have been made on bioactive components and effects of plants. It has been understood that plants have very rich content such as vitamins, minerals, phenolics, flavonoids, saponins, alkaloids, etc. However, perhaps many of the contents of plants are still unknown. Because of their bioactive components, plants have different biological activities such as antibacterial, antifungal, antiviral, antioxidant, antidiabetic, antihypertensive, antimutagenic, anticarcinogenic, etc. Many important plant species belong to the genus *Lamium*, and they have many different biological effects and use for medical purposes. This article discusses the antimicrobial, antioxidant, and other health-related effects of Lamium species.

Keywords: *Lamium*, antimicrobial, antioxidant, biological, health

INFLUENCE OF MOTOR ACTIVITY AND PHYSICAL FACTORS ON ANIMAL DEVELOPMENT (REVIEW)

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ABSTRACT

A chronological analysis of literary materials on the influence of movement activity and physical factors on the dynamics of physiological processes at critical stages of the development of the organism is made and topical aspects are explained. It is shown that the level of development and adaptive properties of living organisms are directly related to the interaction with external environmental factors, as well as with the individual level of movements. The restriction of motor activity affects the dynamics of the functioning of organs and systems, depending on the degree of tension, the duration of action and the stage of development of the organism. The process of adaptation to the factors of the external and internal environment, acting on the whole organism in prenatal ontogenesis and in the early periods of postnatal development, always leaves traces in almost all vital systems. The problem of the impact of environmental factors on the human body is therefore important not only for fundamental physiology, but also for practical medical interests. The social aspects of this problem are no less significant. For a person, the social and ecological environment becomes, to a certain extent, a program of ontogenesis, since the action of the environment ceases to be a random force, it is transformed into a systematic system that has a constant impact on the body. Here it is necessary to take into account the fact that the level of motor activity in animals is a fairly constant genetically determined value, specific for each biological species. Some species of animals are characterized by genetically determined forms of overactivity, while others, on the contrary, have a calm, secretive way of life. We believe that in both cases, hypokinesia present during pregnancy will contribute to the development of undesirable deviations in the "mother-fetus" system, leading to frequent morphofunctional deficiencies in the offspring.

Keywords: ontogeny, motor activity, hypokinesia, physical factors

VAJİNADAN BİR YABANCI CİSİM OLARAK KÜLOTLU ÇORAP ÇIKARILMASI: VAKA SUNUMU

REMOVING PANTİHOSE AS A FOREIGN OBJECT FROM THE VAGINA: CASE REPORT

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ÖZET

Vajinaya yerleştirilmiş yabancı cisimler, birçok farklı nedenden dolayı ortaya çıkabilir ve enfeksiyonlar, tahrişler ve ciddi komplikasyonlara neden olabilir. Yabancı cisimlerin tedavisi, cismin türüne, boyutuna ve semptomlara bağlı olarak değişebilir ve genellikle bir sağlık uzmanı tarafından yapılmalıdır. Vajinaya yerleştirilmiş bir yabancı cisim, ağrı, yanma, kaşıntı gibi semptomlara neden olabilir ve kanama veya irinli akıntı da eşlik edebilir. Örneğin, vajinal kötü kokulu akıntı ve ağrı şikayeti olan bir kadın hastanın muayenesi sırasında vajeninde kilotlu çorap gibi bir yabancı cisim görüldü ve jinekolog tarafından çıkarıldı. Hastaya antibiyotik tedavisi verildi ve tedaviye iyi yanıt verdi. Erken teşhis ve tedavi, daha ciddi komplikasyonları önlemeye yardımcı olabilir.

Anahtar Kelimeler: külotlu çorap, vajina, vajinit

ABSTRACT

Foreign objects inserted into the vagina can occur for many different reasons and can cause infections, irritation, and serious complications. The treatment of foreign bodies can vary depending on the type, size, and symptoms and should generally be done by a healthcare professional. A foreign object inserted into the vagina can cause symptoms such as pain, burning, itching, and can also be accompanied by bleeding or pus-like discharge. For example, during an examination of a female patient who complained of foul-smelling vaginal discharge and pain, a foreign object such as a pair of tights was seen in her vagina and was removed by a gynecologist. The patient was given antibiotic treatment and responded well to treatment. Early diagnosis and treatment can help prevent more serious complications.

Keywords: pantyhose, vagina, vaginitis

DESIGN, SYNTHESIS AND *IN VITRO* SCREENING OF NOVEL 2-Mercaptobenzothiazole-Clubbed PHENYLACETAMIDES AS POTENTIAL ANTIBACTERIAL AGENTS

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ABSTRACT

***Background*:** The frightening rise of bacterial *resistance* is occurring worldwide and endangering the efficacy of *antibiotics.* Hence, development of novel and potent antibacterial is need of the day.

***Objective*:** In this study, we designed and synthesized compounds **C1-C11.** These compounds are characterized by their spectral data and examined *in vitro* for their antibacterial activity.

***Methods*:** To assess the antibacterial activity minimum inhibitory and minimum bactericidal concentrations were examined by broth microdilution method using Mueller Hinton medium (Hi-media) against against the selected stains of both Gram-positive and Gram-negative bacteria. Time-kill kinetics study was also performed as per CLSI guidelines.

***Results*:** Synthesized compounds **C1-C11** were characterized by their spectral data and examined *in vitro* for their antibacterial activity. Compounds **C6** and **C7** displayed promising activity against *Staphyloccocus aureus* ATCC 43300 with MICs of 9.43 and 7.73 µM, respectively. These two compounds also displayed promising antibacterial activity against *S. aureus* 5021 with MIC value of 7.53 and 9.68 µM, respectively. In MBC determination these two compounds displayed bactericidal activity against methicillin resistant *S. aureus* ATCC 43300, *S. aureus* NCIM 5021 and *S. aureus* NCIM 5022. In time-kill kinetics study compounds **C6** and **C7** also exhibited bactericidal activity against *S. aureus* NCIM 5021 and *S. aureus* ATCC 43300 after 12 h of exposure. In general, all tested compounds exhibited poor activity against *Mycobacterium tuberculosis* NCIM 2984 and also against tested Gram-negative bacteria *Klebsiella pneumoniae* NCIM 2706, *Escherichia coli* NCIM 2065 and *Pseudomonas aeruginosa* NCIM 2036. Further, computed ADMET properties of **C1-C11** showed favourable pharmacokintic profile with zero violation of Lipinski's rule of five.

***Conclusion*:** In the present study compounds **C6** and **C7** displayed promising activity against *Staphyloccocus aureus* ATCC 43300 with MICs of 9.43 and 7.73 µM, respectively. These two compounds also exhibited bactericidal activity respectively against *S. aureus* NCIM 5021in time kill kinetics study.

Keywords: 2-mercaptobenzothiazole, antibacterial, MRSA, N-phenylacetamides, time-kill kinetics