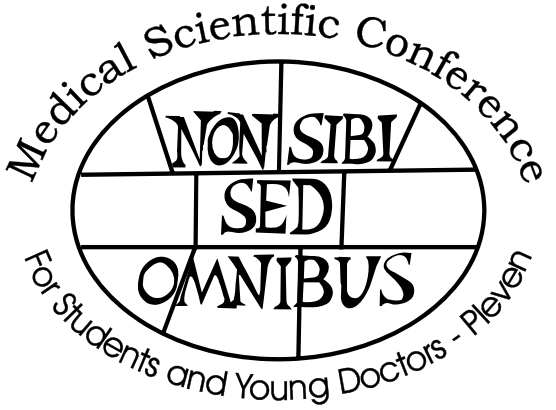
MEDICAL UNIVERSITY – PLEVEN, BULGARIA

XX INTERNATIONAL MEDICAL SCIENTIFIC CONFERENCE FOR STUDENTS AND YOUNG DOCTORS
16 – 20 OCTOBER 2023

MEDICAL UNIVERSITY – PLEVEN, BULGARIA



ABSTRACT BOOK

Under the auspices of the Rector of Medical University – Pleven, Bulgaria

Prof. Dobromir Dimitrov, MD, PhD

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DEAR YOUNG COLLEAGUES, INTERNATIONAL GUESTS AND FRIENDS,

It is a great pleasure and honour for me to welcome you at the Anniversary 20th Edition of the International Medical Scientific Conference for Students and Young Doctors in Pleven – the most successful and attractive student forum in Bulgaria that has become an emblem for our institution across the country and worldwide.

There are three key factors for a successful meeting. First, it's the educational institution – Medical University of Pleven is a pioneer in robotic surgery, telemedicine, 3D medicine and bio printing introducing advanced technologies in education and clinical practice. For its almost 50-year history the University is developing very dynamically attracting growing numbers of Bulgarian and international students. We constantly implement high-tech educational instruments. Part of our digital portfolio is the educational platform Lecturio; 3D medical table for virtual dissections; VR studio with 360-degree view over the operating room; 3D studio for Live Surgery demonstrations; studio for training with holographic images; augmented reality studio an laboratories in telepathology, 3D printing and bioprinting.

The second and most important factor for a successful forum are the students. I am proud of the young people today, because they are curious and brave, eager to study and discover; seeking new challenges and adventures; always motivated and committed.

The third key factor is the support – students need the support of their professors in order to be motivated, devoted and inspired. That is why we, their professors and all the invited speakers, are here - to teach them, to support them, to show and to guide them along the way.

The motto of 20th International Medical Scientific Conference for Students and Young Doctors in Pleven is: Destination: The Doctor's Beautiful Mind. There are many beautiful aspects of the doctor's mind and they should be revealed to the public through clinical practice and science. This reminds me of a quotation from the film "A Beautiful Mind" – "In medicine or economics, in technology or space, battle lines are being drawn. To triumph, we need results. Publishable, applicable results."

Looking forward to meeting many beautiful minds at the 20th International Medical Scientific Conference for Students and Young Doctors in October!

PROF. DOBROMIR DIMITROV, MD, PHD
RECTOR OF MEDICAL UNIVERSITY – PLEVEN, BULGARIA

DEAR TEACHERS,
DEAR COLLEAGUES AND FRIENDS,

Once again, it is our pleasure to welcome you to the XX International Medical Scientific Conference for Students and Young Doctors (MDSC) with this year's motto "Destination: The Doctor's Beautiful Mind".

The twentieth edition of this inspiring forum of young scientist will take place on 16th October – 20th October 2023 at the University Telecommunication Endoscopic Center (TELEC) of MU-Pleven. It has been 20 years since one exciting beginning who set the first steps to infinite science and shared experience. These years are full of hard work, challenges and successes.

20 years of memories, new friendships and strong relations that will live through time!

It has been 49 years since Medical University – Pleven started giving us knowledge and wisdom! It is a fortress of future light in education and research and a path to good realization and modern training that brightens our professional dreams! And that is why we continue working with the same motivation, passion and curiosity which guided the very first Organizing Committee in the year of beginning 2002!

Following our tradition, we will tirelessly focus on bringing you again to the best lectures and workshops that we strongly believe will broaden your competence in the basic fields of medicine and health sciences.

We also put our efforts on organizing the Eight Autumn School on Innovations in Medicine which has become a hallmark of MU-Pleven during the first conference days. This year, we will focus your attention on three main pillars: Forensic Medicine, Plastic Surgery and Medical Imaging. Furthermore, we will cover a number of other innovative topics throughout the entire duration of the conference.

Like in any other remarkable event, your experience would not be completed without meeting new amazing people at our social programme, including a Welcome party and a trip to one of the many beautiful locations in Bulgaria. Therefore, stay tuned for more information.

We are filled with enthusiasm and are looking forward to meeting you all here in Pleven at the XX International Medical Scientific Conference for Students and Young Doctors.

"The most beautiful things in the world cannot be seen or touched, they are felt with the heart." – Antoine de Saint-Exupéry, The Little Prince

Warmest regards!

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ANATOMICAL 3D PRINTING & QUIZ: WIN AN OSCAR	Vanyo Vezirov, MD OS Education, Bulgaria
DROVELIS – NEW PERSPECTIVE IN HORMONAL CONTRACEPTION	Elitsa Gyokova, MD, PhD Gedeon Richter
BAUSCH HEALTH DERMATOLOGICAL PORTFOLIO – TREATMENT ADAPTED TO THE NEEDS OF EVERY PATIENT	Prof. Dimitar Gospodinov, MD, DSc Department of Dermatology, Venereology and Allergology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
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W2: POCUS – POINT OF CARE ULTRASOUND	**Moderator:** Assoc. prof. Stefan Tchernodrinski, MD, PhD University of Illinois Hospital, Chicago, IL, USA
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W5: COMPUTER-AIDED DRUG DESIGN	**Moderator:** Assist. Prof. Aleksandar Pashev Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Medical University – Pleven, Bulgaria

W6: DIFFUSION AND SPIROMETRY	**Moderator:** Nikolay Kyuchukov, MD, PhD Department of Pulmonology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
W7: PLASTERING BASICS	**Moderators:** Emil Simeonov, MD, PhD, Victor Mixon, MD Clinic of Orthopedics and Traumatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria.
W8: PANCYTOPENIA – A CHALLENGE IN CLINICAL PRACTICE	**Moderator:** Ivaylo Hristov, MD Department of Hematology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
W9: ATOPIC DERMATITIS – WHICH IS THE RIGHT EMOLLIENT?	**Moderator:** Veronika Gincheva, MD, PhD Department of Dermatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
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16 OCTOBER, 2023 (MONDAY)	
EIGHTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE	
10:00 - 14:00	**Registration – TELEC**
13:00 - 13:45	**POST MORTEM IMAGING DIAGNOSIS** **Fabrice Dedouit, MD, PhD** Chair of International Society of Forensic Radiology and Imaging Centre Hospitalier Universitaire (CHU) de Toulouse, France
13:45 - 14:30	**NEW TECHNOLOGIES IN FORENSIC MEDICINE – FROM INNOVATION TO INVESTIGATION** **Yanko Kolev, MD, PhD** Department of General Medicine, Forensic Medicine and Deontology, Medical University – Pleven, Bulgaria
14:30 - 14:45	Coffee break
14:45 - 15:00	**SPONSORED LECTURE: BOIRON – WORLD LEADER IN HOMEOPATHY**
15:00 - 15:45	**UNDERSTANDING MEDICAL MALPRACTICE: LEGAL INSIGHTS AND PREVENTION** **Damyan Dimov** Attorney-at-Law, Specialist in Medical Law, Sofia, Bulgaria
17 OCTOBER, 2023 (TUESDAY)	
EIGHTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE	
08:30 - 12:00	**Registration – TELEC**
09:30 - 10:30	**HOW I DIAGNOSE AND TREAT PEDIATRIC-ONSET LANGERHANS CELL HISTIOCYTOSIS** **Prof. Milen Minkov, MD, PhD** Head of Oncology Department, University Clinic of Pediatric and Adolescent Medicine, Johannes Kepler Universität, Linz
10:30 - 11:30	**PHARMACOTHERAPY OF COVID-19 – QUO VADIS?** **Prof. Georgi Momekov, MPharm, PhD** Head of the Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University of Sofia, Bulgaria. President of Bulgarian Pharmaceutical Science Society.
11:30 - 12:30	Lunch break

12:30 - 13:15	**CHALLENGES AND NOVELTIES IN MINIMALLY INVASIVE SURGERY** **Prof. Mohamed Hamed, MD** Cairo University, Cairo, Egypt Vice-president of International Society of Minimally Invasive and Virtual Surgery Founder of First Center of Focused Ultrasound Tumor Ablation for Treatment of Tumors in the Middle East and Africa (HIFU Egypt)
13:15 - 14:00	**INTERNATIONAL MOBILITY UNDER THE "ERASMUS+" MEETING:** FOCUS ON THE 2021-2027 ERASMUS+ PROGRAM – NEW OPPORTUNITIES FOR MOBILITY AND COOPERATION IN HIGHER EDUCATION. **Moderators:** Erasmus+ experts, International and Project Activities Department, Medical University – Pleven, Bulgaria
14:00 - 16:00	**WORKSHOP 1: CLAY TO REALITY – FACIAL RECONSTRUCTION** **Moderators: Prof. Partha Vaiude, FRCS** Consultant Plastic, Aesthetic & Reconstructive Surgeon; Managing Director - Surgical Art, Liverpool; Adjunct Professor, Liverpool John Moores University **Iren Bogeva, MD** Department of Plastic and Reconstructive Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
14:00 - 14:15	Coffee break
14:15 - 15:30	**KEYNOTE LECTURE: ADULTS WITH CONGENITAL HEART DISEASE – A GROWING NEW PATIENT POPULATION** **Dr. med. Philippe Grieshaber, MD, PhD** Senior Physician Specialist in Heart Surgery and Intensive Care medicine Certificate "Surgery of Congenital Heart Defects", Pediatric Cardiac Surgery Section, Cardiac Surgery Clinic, University Hospital Heidelberg, Medical Faculty, Heidelberg University, Germany
15:30 - 15:45	**SPONSORED LECTURE: GIVE SMART: PRACTICES AND TRENDS IN PHILANTHROPY BY THE BULGARIAN DONORS' FORUM** **Teodora Bakardzhieva** Bulgarian Donors' Forum/ America for Bulgaria Foundation
15:45 - 16:00	Coffee break

16:00 - 17:30	**OFFICIAL OPENING CEREMONY** **DOCTOR HONORIS CAUSA AWARD CEREMONY** **ACADEMIC LECTURE: HEARTS** **Prof. Tsvetomir Loukanov, MD, PhD** Head of Pediatric Cardiac Surgery, Department of Cardiac Surgery, University of Heidelberg, Heidelberg, Germany
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18 OCTOBER, 2023 (WEDNESDAY)	
08:00 - 14:00	**Registration – TELEC**
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10:00 - 10:45	**KEYNOTE LECTURE: HIGH-INTENSITY FOCUSED ULTRASOUND (HIFU) IN ADVANCED PANCREATIC CANCER** **Assoc. Prof. Milka Marinova, MD, PhD** Department of Diagnostic and Interventional Radiology, University of Bonn, Bonn, Germany
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12:30 - 13:00	Lunch break
13:00 - 13:45	**ORAL PRESENTATIONS BY SECTIONS: OBSTETRICS, GYNECOLOGY & PEDIATRICS**
13:45 - 14:00	**SPONSORED LECTURE: DROVELIS – NEW PERSPECTIVE IN HORMONAL CONTRACEPTION** **Elitsa Gyokova, MD, PhD** Gedeon Richter
14:00 - 15:00	**KEYNOTE LECURE: AI TECH AND LOCAL ABLATION** **Prof. Kun Zhou, MD, PhD** Department of Oncology, Second Affiliated Hospital, Chongqing Medical University, Chongqing, China
XX MDSC WORKSHOPS	
15:00 - 18:00	**WORKSHOP 2: POCUS – POINT OF CARE ULTRASOUND** **Moderator:** Assoc. prof. Stefan Tchernodrinski, MD, PhD University of Illinois Hospital, Chicago, IL, USA *In collaboration with Infinita Medical Equipment*

15:00 - 18:00	**WORKSHOP 3: SURGICAL SKILLS WITH PRACTICE ON REAL TISSUES** **Moderators:** Dobromir Nguen, MD, PhD, Anislav Gabarski, MD, PhD Department of Coloproctology and Peptic-Septic Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
15:00 - 18:00	**WORKSHOP 4: MINIMALLY INVASIVE SURGERY** **Moderators:** Martin Karamanliev, MD, PhD, Meri Shoshkova, MD Department of Surgical Oncology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
15:00 - 18:00	**WORKSHOP 5: COMPUTER-AIDED DRUG DESIGN** **Moderators:** Assist. Prof. Aleksandar Pashev, Assist. Prof. Teodora Aleksandrova Department of Chemistry and Biochemistry, Faculty of Pharmacy, Medical University – Pleven, Bulgaria
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15:00 - 18:00	**WORKSHOP 9: ATOPIC DERMATITIS – WHICH IS THE RIGHT EMOLLIENT?** **Moderator:** Veronika Gincheva, MD, PhD Department of Dermatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria *In collaboration with Pierre Fabre Laboratories*
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14:00 - 14:30	Lunch break
14:30 - 15:15	**ORAL PRESENTATIONS BY SECTIONS: PHARMACY**
15:15 - 15:30	Coffee break
15:30 - 16:30	**PLENARY LECTURE: FRAILTY SYNDROME: INEVITABLE OR PREVENTABLE CONSEQUENCE OF AGING** **Katarzyna Broczek, MD, PhD** Polish Society of Gerontology, Poland
16:30 - 17:00	**SPONSORED LECTURE: BAUSCH HEALTH** **BAUSCH HEALTH DERMATOLOGICAL PORTFOLIO – TREATMENT ADAPTED TO THE NEEDS OF EVERY PATIENT** **Prof. Dimitar Gospodinov, MD, DSc** Department of Dermatology, Venereology and Allergology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria **THREE EFFECTIVE APPROACHES FOR PAIN MANAGEMENT** **Assoc. Prof. Maya Danovska, MD, PhD** Department of Neurology and Neurosurgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
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20 OCTOBER, 2023 (FRIDAY)	
09:00 - 10:00	**ORAL PRESENTATIONS BY SECTIONS: PhD STUDENTS**
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11:00 - 11:15	Coffee break
XX MDSC ANNIVERSARY VETERANS SECTION	
11:15 - 12:15	**DOES EXTRACURICULAR STUDENT LEADERSHIP HELP IN THE FUTURE MEDICAL CAREER?** Prof. Dobromir Dimitrov, MD, PhD Rector of Medical University – Pleven, Bulgaria Department of Surgical Oncology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria **TO BE OR WHY TO BE…AN ANESTHESIOLOGIST – THAT IS THE QUESTION!** Boris Tablov, MD Department of Anesthesiology and Intensive Care, University Hospital "Deva Maria", Burgas, Bulgaria **PLASTIC AND RECONSTRUCTIVE SURGERY – CHALLENGES AND INNOVATIONS** Iren Bogeva-Tsolova, MD Department of Plastic and Reconstructive Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria **NEONATAL MARFAN SYNDROME WITHOUT GENETIC PROOF** Emel Emin, MD Pediatric Department, Klinikum Klagenfurt am Wörthersee, Klagenfurt, Austria **HEPATOBILIARY SEPSIS – HOW TO RECOGNIZE AND MANAGE IT** Assoc. prof. Polina Marinova, MD, PhD Department of Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria **COLORECTAL CARCINOMA PATIENTS – DESTINIES AT CROSSROADS** Assoc. prof. Paulina Vladova, MD, PhD Department of Coloproctology and Peptic-Septic Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria **GREEN NEPHROLOGY** Aygulya Akisheva, MD Department of Nephrology and Dialysis, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
12:15 - 12:45	**Lunch break**
12:45 - 14:45	**ORAL PRESENTATIONS BY SECTIONS: SURGERY, ORTHOPEDICS & UROLOGY (PART 1)**
14:45 - 15:00	Coffee break

15:00 - 16:30	**ORAL PRESENTATIONS BY SECTIONS: SURGERY, ORTHOPEDICS & UROLOGY (PART 2)**
17:00	**OFFICIAL CLOSING CEREMONY**
DHI CLUSTER Parallel session – Galen Hall, TELEC	
09:30 - 10:00	**OPENING: The digital health and innovation community is growing** Mira Ganova PhD; DHI Cluster Bulgaria Prof. Dr. Dobromir Dimitrov; MU-Pleven **KEYNOTE: Digital transformation of healthcare. Why is it important?** Dr. Rosen Dimitrov; NRETIA Health & Mira Ganova PhD; DHI Cluster Bulgaria
PANEL 1:	
10:00 - 10:15	**KEYNOTE: Strategizing in the digital transformation era** Fabien Lanteri | Head of Health Strategy and Innovation, Ville de Nice
10:15 - 11:15	**Panel discussion: How to speed up innovation in healthcare?** Moderator: Mira Ganova, PhD; DHI Cluster 1. Valentin Tafrajiiski; Novotika 2. Ivaylo Kanev; Tiger Technology 3. Todor Milkov; SAT Health 4. Dr. Branimir Raduilov; Consento
11:15 - 11:30	**Break and #networking**
PANEL 2:	
11:30 - 11:45	**KEYNOTE: Health promotion and disease prevention in the digital era** Vera Dukleva, MSD, Digital & Operation Department Lead
11:45 - 12:45	**Panel discussion: How to support health behaviour and selfcare?** Moderator: Dr. Branimir Raduilov; Consento 1. Rossen Russinov; Consento 2. Pavel Pavlov; Dr. Marin Benkin| Play Reha 3. Sava Todorov; MSD 4. Kremena Georgieva; Merck
12:45 - 14:00	**Lunch and #networking**

PANEL 3:	
14:00 - 14:15	**KEYNOTE: Precision medicine and the new health technologies** Maryia Trubitsyna, PhD Genomic and Precision Medicine, EMEA
14:15 - 15:15	**Panel discussion: Healthcare in the digital era. Access, quality, and outcome** Moderator: Dr. Rosen Dimitrov; NRETIA Health 1. Gerasim Hristov; Lepzi 2. Yordan Iliev; MY Synergy 3. Todor Milkov; SAT Health 4. Representative of the National Council on Prices and Reimbursement of Medicinal Products (NCPRMP)
15:15 - 15:30	**Break and #networking**
PANEL 4:	
15:30 - 15:45	**KEYNOTE: Data that heals. Why is health data the key?** Dr. Damyan Boychev | Sqilline
15:45 - 16:30	**Sum-up & Closing** Dr. Rosen Dimitrov; NRETIA Health & Mira Ganova PhD; DHI Cluster Bulgaria

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EIGHTH AUTUMN SCHOOL ON INNOVATIONS IN MEDICINE

16 - 17 October 2023

16th October 2023

FORENSIC AND ANTHROPOLOGICAL IMAGING: ABOUT MY DIFFERENT EXPERIENCES

Fabrice Dedouit, MD, PhD
Chair of International Society of Forensic Radiology and Imaging
Centre Hospitalier Universitaire (CHU) de Toulouse, France

Introduction of imaging through plain X-rays, in forensic medicine and anthropology is quite as old as radiology. The development of Computed tomography enabled also applications in forensic medicine and anthropology. Nowadays, the concepts of virtual autopsy and virtual anthropology are well known. Virtual autopsy allows a complete evaluation of a deceased person, with or without contrast agent injection. The forensic contexts in which it can be used are enormous: trauma (including ballistic trauma, sharp trauma, motor vehicle accidents, fall from great height, child abuse…), but also asphyxia, natural deaths, post-surgery deaths… This procedure is very comfortable for the forensic pathologist, like a surgeon who has clinical imaging of the patient who will undergone surgery. The main advantages are multiple: it is a fast, non-invasive procedure, with possibility of transferring the images, new interpretations are possible, tele-radiology is also possible. Another large indication, when performing post mortem imaging is also individual identification! This is sometimes a link with virtual anthropology. It will be possible to identify lesions and document diseases such as rheumatic pre-existing conditions, neoplasms, but also surgical foreign bodies… When comparing ante and post mortem radiological data, it is possible to do comparative identification Another part is reconstructive identification, which makes it possible to assess the age of death, geographical origin, sex and stature, using techniques used by forensic anthropologists, but also with the possibility of developing original radiological methods. It is possible to apply forensic pathological and anthropological knowledge to mummified bodies by carrying out virtual autopsies and virtual anthropology. Besides the forensic pathological use of the radiological tools like Computed tomography and Magnetic Resonance Imaging, it is also possible to use it in an archaeological context for mummies, funerary urns.
During this presentation, these various points will be illustrated by means of personal cases.

NEW TECHNOLOGIES IN FORENSIC MEDICINE - FROM INNOVATION TO INVESTIGATION

Yanko Kolev, MD, PhD
Department of General Medicine, Forensic Medicine and Deontology, Medical University – Pleven, Bulgaria
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Science is in a constant state of evolution, and forensic medicine stands as an interdisciplinary field at the intersection of law and medicine. To effectively combat crime and negative societal phenomena, scientific investigation must maintain a technological edge. Therefore, innovations must be swiftly integrated into practice while adhering to rules and scientific standards of evidential value. Over the past two decades, various technologies have emerged and been applied in legal medicine and forensics, such as virtual autopsies, 3D scanning, modelling and reconstruction, specialized lighting sources, forensic entomology, unique methods for trace and substance analysis, and many others. These technologies draw from fields like physics, optics, mathematics, electronics, computer technology, biotechnology – initially developed for other purposes but finding application in forensic medicine and criminalistics.

Digitization has permeated all stages of medico-legal death investigations – from the crime scene examination to the autopsy room, as well as for the subsequent processing of collected evidence and the recreation of events through their visualization or modelling.

The latest methods for documenting a crime involving a corpse, from the crime scene to the examination of the body, the search for injuries, and physical evidence, as well as the most effective recreation of events and the mechanisms of death, will be described.

A forensic pathologist cannot be a universal specialist and technological guru, but they must be proficient in methodologies and able to collaborate with other specialists to obtain the most objective results possible. The pursuit of justice seeks objectivity to ensure fairness.

UNDERSTANDING MEDICAL MALPRACTICE: LEGAL INSIGHTS AND PREVENTION

Damyan Dimov
Attorney-at-Law, Specialist in Medical Law, Sofia, Bulgaria

Medical malpractice is a topic that every medical practitioner should be familiar with. Modern society in Bulgaria is becoming more and more sensitive to this matter. This is confirmed by the increasing number of lawsuits against doctors, as well as the serious media coverage given to some adverse events that have happened to patients. This lecture examines the main aspects of medical malpractice, with important emphasis on preventing lawsuits despite mistakes.

First, a historical overview of the concept is presented. In addition, the presentation provides statistics on the most common medical malpractice cases, as well as which medical specializations are most at risk.

The lecture also addresses the main legal features of medical malpractice. An overview is given of the basic facts that are subject to proof in a lawsuit against a physician and/or hospital. The issue of causation between the physician's conduct and the patient's injury is thoroughly examined.

In order to better understand the legal concepts, a real-life case study with major issues in the field of medical malpractice is presented. The basic steps for solving a legal case are outlined, such as discovering the legally relevant facts and matching them with the legal rules.

Finally, the lecture offers a summary of best medical practices for avoiding medical malpractice. Important emphasis is placed on diligent medical record keeping and good communication with patients.

17th October 2023

HOW I TREAT PEDIATRIC-ONSET LANGERHANS CELL HISTIOCYTOSIS

Prof. Milen Minkov, MD, PhD
Head of Oncology Department, University Clinic of Pediatric and Adolescent Medicine, Johannes Kepler Universität, Linz

Langerhans cell histiocytosis (LCH) is the most common histiocytosis in childhood. New insights into the biology of dendritic cells and the discovery that the lesional CD1a+/CD207+ histiocytes carry a somatic mutation in the MAPK signaling pathway in 60-85% of the LCH patients allowed defining LCH as a myeloid neoplasia. The disease has a diverse clinical phenotype, depending on the location and extent of the affected organs, making diagnosis difficult. Reproducible diagnostic criteria, reliable prognostic factors, and uniform disease stratification have been elaborated through international clinical trials. A distinction is made between single system and multisystem LCH depending on the number of affected organs. The monosystemic form is mainly restricted to the skeleton (much less often to the skin, lymph nodes, lungs, etc.) and has an excellent prognosis (survival 100%, relapse rate 20%). Multisystem LCH has an unpredictable course, and even with adequate treatment, a mortality rate of up to 10-15% has been reported. Unfavorable prognostic factors are involvement of the liver, spleen, and hematopoiesis (typically seen in children < 2 years of age) and lack of response to initial systemic treatment. The extent of the disease determines the therapeutic approach. Monosystemic skeletal LCH is treated conservatively due to its excellent prognosis. The combination of prednisolone and vinblastine has been established as the standard treatment for multisystem LCH. It is divided into a more intensive initial therapy phase (6-12 weeks) and a milder maintenance phase (given to a total treatment duration of 12 months). If standard therapy fails, more intensive therapy with cladribine/cytarabine or allogeneic stem cell transplantation are two evidence based options for children with organ dysfunction. Increasing knowledge of LCH biology opens opportunities for targeted therapy with BRAF and MEK inhibitors, whose role remains to be established in prospective clinical trials.

PHARMACOTHERAPY OF COVID-19 – QUO VADIS?

Prof. Georgi Momekov, MPharm, PhD
Head of the Department of Pharmacology, Pharmacotherapy and Toxicology, Faculty of Pharmacy, Medical University of Sofia, Bulgaria.
President of Bulgarian Pharmaceutical Science Society.

The development and clinical implementation of vaccines against COVID-19 has been the most substantial advance against the pandemic. Nevertheless, the successful introduction of vaccines has not prevented, during the whole period of the pandemic, the constant search for pharmacological modalities to tackle the viral replication or the inflammatory responses - an endeavour encompassing both repurposing of existing drugs or de novo drug design and development. In this presentation, a brief overview of the pharmacotherapeutic approaches for COVID-19 will be presented with an emphasis on the medicinal products currently available in the EU.

CHALLENGES AND NOVELTIES IN MINIMALLY INVASIVE SURGERY

Prof. Mohamed Hamed, MD
Cairo University, Cairo, Egypt
Vice-president of International Society of Minimally Invasive and Virtual Surgery
Founder of First Center of Focused Ultrasound Tumor Ablation for Treatment of Tumors in the Middle East and Africa (HIFU Egypt)

LECTURES

ACADEMIC LECTURES

OFFICIAL OPENING CEREMONY
DOCTOR HONORIS CAUSA AWARD CEREMONY

HEARTS

Prof. Tsvetomir Loukanov, MD, PhD
Head of Pediatric Cardiac Surgery, Department of Cardiac Surgery, University of Heidelberg, Heidelberg, Germany

Since time immemorial, the heart has intrigued, excited and inspired human beings, and continues to do so today. It has many facets, which arouse intense feelings, some physical, others emotional or poetic. Considered the 'house of the soul', it has extraordinary powers to influence individuals, communities, nations and beyond. And all the while, it quietly, efficiently and tirelessly supports life.
Watching the heart beating during a cardiac operation can be mesmerizing; it arouses intense feelings of admiration mixed with wonder.
It is a remarkable fact that the vast majority of heart defects can now be mended by surgery. However, surgery needed more than 2500 years to arrive where we are today!

TUMOR VACCINATION INDUCED BY INTRA-TUMORAL INJECTION OF IMMATURE DENDRITIC CELLS INDICATED FOR ADVANCED MALIGNANCIES

Hasumi K.*, Hasumi J.*, Mann D.L.**
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AIM/OBJECTIVES
The aim of this investigation is to induce cytotoxic T-lymphocytes (CTLs) using intra-tumoral injection of immature dendritic cells (imDCs) and utilize clinical indication for advanced malignancies.
METHODS
Leukapheresis scheduled to prepare imDCs and at the same time tumor biopsy made to examine expression of PD-L1 and inflammatory cytokines by immune stain. If any positive result found in above examination, these antibodies and imDCs delivered into primary and metastatic sites. After 4 weeks of imDCs injection, CTLs harvested from peripheral blood and CT performed for preliminary evaluation for each tumor. If tumor size increased conventional therapies combined to regulate tumor growth. During periodical imaging checkups, when new lesion found CTLs and imDCs delivered into tumors. After achieved complete response (CR), imDCs used for prevention and maintained for 3 years.
RESULTS
If patient diagnosed stage IV or recurrent condition but not starting any conventional treatment, 3 years CR rate is around 70% as inclusion criteria under number of tumors 10≥ and tumor size 3cm≥. If CR maintained after 3 years, we have been not experienced further recurrent in the past CR cases.
CONCLUSION
Tumor vaccination by intra-tumoral imDCs will induce CTLs production inside of tumors and regional lymph nodes, and also it will going in peripheral blood and delete circulating tumor cells (CTC). If these cells regulated in blood flow, development of new metastasis will be down regulated to approach CR.

KEY WORDS: dendritic cell, cytotoxic T-lymphocyte, tumor vaccination

KEYNOTE LECTURES

ADULTS WITH CONGENITAL HEART DISEASE – A GROWING NEW PATIENT POPULATION

Dr. med. Philippe Grieshaber, MD, PhD
Senior Physician Specialist in Heart Surgery and Intensive Care medicine
Certificate "Surgery of Congenital Heart Defects", Pediatric Cardiac Surgery Section, Cardiac
Surgery Clinic, University Hospital Heidelberg, Medical Faculty, Heidelberg University, Germany

Thanks to the advances in surgical, interventional and medical treatment of congenital heart disease in the last 50 years, over 90% of patients with congenital heart disease survive into adulthood today. This new population of adult patients with specific medical needs necessitates new therapeutic approaches and social frameworks to optimize their chances for continuing good quality and longevity of life.

AI TECH AND LOCAL ABLATION

Prof. Kun Zhou, MD, PhD
Department of Oncology, Second Affiliated Hospital, Chongqing Medical University, Chongqing, China

High-Intensity Focused Ultrasound (HIFU) is a non-invasive medical procedure that uses focused ultrasound waves to heat and destroy targeted tissue within the body. What is the vast range of clinical application? What will all the possibilities be of AI technology with HIFU in the future?

HIGH-INTENSITY FOCUSED ULTRASOUND (HIFU) IN ADVANCED PANCREATIC CANCER

Assoc. Prof. Milka Marinova, MD, PhD
Department of Diagnostic and Interventional Radiology, University of Bonn, Bonn, Germany

Pancreatic cancer is a highly malignant disease, typically diagnosed at a late stage, and often associated with early metastasis, making it a life-limiting tumor. It presents a wide range of incapacitating symptoms, including cancer-related pain and local symptoms that significantly reduce the patient‘s quality of life. Such cancer-related symptoms are observed in more than 80% of patients with advanced-stage disease. In recent times, several local ablative options, involving both thermal and non-thermal sources, have garnered significant attention. These approaches aim to achieve local tumor control and improve symptoms. High-intensity focused ultrasound (HIFU) is among these innovative techniques. At the University Hospital Bonn, over 150 patients diagnosed with late-stage pancreatic cancer, including those with both non-metastatic and metastatic disease, underwent local HIFU treatment in last years. The clinical assessment involved evaluation of symptom burden and changes in tumor volumes. In addition, survival analysis was conducted to estimate median overall survival and compare it with a historic cohort. In HIFU-treated patients, tumor mass reduction was observed showing an average volume reduction of 60% after 6 months. Notably, in 85% of cases, long-lasting pain relief was achieved, with 50% of patients no longer requiring analgesic treatment six weeks post-ablation. This contrasts with other local treatment modalities where reports of pain palliation and quality of life outcomes are relatively rare. Moreover, HIFU appears to have a beneficial effect on the survival of patients with advanced pancreatic cancer. In summary, US-guided HIFU in advanced pancreatic cancer leads to significant early and long-lasting improvement in pain and consecutively patient´s quality of life. Thus, HIFU therapy currently represents an effective disease-specific local therapy in the palliative setting. Besides the major clinical benefits, the preliminary survival data in terms of overall survival are particularly encouraging.

INTERNATIONAL MOBILITY UNDER THE 2021-2027 ERASMUS+ PROGRAM: FOCUS ON THE NEW OPPORTUNITIES FOR MOBILITY AND COOPERATION IN HIGHER EDUCATION

Diana Pendicheva-Duhlenska*, Hristina Lebanova**, Nikolina Angelova, Albena Tancheva****, Milislava Gancheva********
****Vice-Rector for International and Project Activities, MU-Pleven, Bulgaria***
*****Institutional Erasmus+ Coordinatorq MU-Pleven, Bulgaria***
******Head of the Erasmus+Department, MU-Pleven, Bulgaria***
*******Expert Erasmus+Department, MU-Pleven, Bulgaria***
********Expert International and Internal mobility, MU-Pleven, Bulgaria***
Presenting author: Nikolina Angelova
Correspondence: iro@mu-pleven.bg

We will present the opportunities for student and youth mobility in higher education under the new 2021-2027 Erasmus+ program. Medical University – Pleven is awarded with Erasmus Charter for Higher Education 2021 – 2027 by the European Commission, which provides the general quality framework for European and international cooperation activities.
Focusing on the bilateral agreements of Medical University – Pleven with universities from program and partner countries will elucidate the most important steps for effective administration of the student mobility for study and traineeship. Incoming students from Italy, Slovakia, Spain and Turkey will share information about their home universities and the motivation to come to Medical University – Pleven. The experts from the Erasmus+ Department will explain application conditions, recognition, financial support, required documents and inter-institutional bilateral agreements.

KEY WORDS: "Erasmus+" program, student exchange, staff exchange, Medical university – Pleven.

PLENARY LECTURES

FRAILTY SUNDROME: INEVITABLE OR PREVENTABLE CONSEQUENCE OF AGING

Katarzyna Broczek, MD, PhD
Polish Society of Gerontology, Poland

The concept of frailty as a geriatric syndrome has been developed over the last two decades and is predominantly understood as physical frailty. It is defined as increased vulnerability to stress factors leading to augmented risk of unfavorable health outcomes. Age is a significant risk factors for developing frailty, however not all older adults are frail. The major mechanisms underlying physical frailty are loss of muscle strength and mass (sarcopenia) and low-grade systemic inflammation associated with aging (inflammaging). The main challenge is to recognize the development of frailty before it reaches the stage of explicit clinical presentation and to plan preventive strategies including adequate physical activity and diet. The lecture will address current scientific models of frailty on cellular and molecular level, practice-oriented diagnostic workup and management strategies including the role of medical education, health care system organization and proactive aging.

BACTERIOPHAGES: UNKNOWN FOR BULGARIA, THE USEFUL AND HARMFUL VIRUSES

Kalvatchev N.Z.*, Penev M.A.**
****Department of Medical Microbiology, Medical Faculty, Medical University – Sofia, Bulgaria***
*****Department of Medical Chemistry and Biochemistry, Medical Faculty, Medical University – Sofia, Bulgaria***
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The rise of bacterial resistance to antibiotics in global and national scale is a growing problem. At the same time, there is lack of medical experience in handling bacteriophages both, the In-vitro procedures and treatment with them in Bulgaria. Actually, bacteriophages are unknown to our country, and the experience gained with them in the70s and 80s by our scientists has faded. Here we present the benefits, drawbacks and problems associated with bacteriophages from a medical perspective. Our goal is to draw attention to our scientific community that bacteriophages are a possibility and an alternative to deal with some infections, but only after gaining experience. With this presentation, we describe and share our results in the field.

KEY WORDS: bacteriophages, bacterial resistance

SUPPRESSING miRNA-10B: A REVIEW ON A PROMISING NEW APPROACH FOR TREATMENT OF METASTATIC BREAST CANCER

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Metastatic breast cancer is still a leading, if not the leading cause of oncology related deaths among women. Although during the past two decades a significant progress has been made, novel approaches addressing the problem are an unmet medical need. A growing number of studies research the role of various microRNAs (miRNAs) in the complex cellular interplay and regulations of gene expression, with special focus on miRNA-10b in particular. It has been shown to be crucial for migration and invasion of cancer cells, as well as for their vitality, therefore being an important factor stimulating the metastatic processes. A novel approach showing promising results in experimental settings involves specific inhibition of miRNA-10b through in vivo delivery of antagomirs. The present report reviews some of the most contemporary studies showing in detail the exact mechanisms that are responsible for the miRNA-10b roles, explains the methods to counter the effects of this regulatory RNA and gives an updated on the obtained results so far.

KEY WORDS: microRNA-10b; antagomir; metastatic disease; breast cancer

XX MDSC ANNIVERSARY VETERANS SECTION

TO BE OR WHY TO BE…AN ANESTHESIOLOGIST – THAT IS THE QUESTION!

Boris Tablov, MD
Department of Anesthesiology and Intensive Care, University Hospital "Deva Maria", Burgas, Bulgaria

To choose a medical specialty could be a tough discission. In this presentation, I will discuss the pros and cons of choosing Anesthesiology. The presentation will include a brief review of the literature, an overview of my personal experience and other sources that I will use to try and convince you that anesthesiology is the best choice you can make in your professional life. Hope to see you there. Spoiler alert: anesthesiologists are kind of magicians.

PLASTIC AND RECONSTRUCTIVE SURGERY – CHALLENGES AND INNOVATIONS

Iren Bogeva-Tsolova, MD
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Department of Surgical diseases, Medical University - Pleven, Bulgaria
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OBJECTIVES
The aim of this report is to show the face of plastic and reconstructive surgery that few people know. By presenting cases from the practice it would be pointed out that the patients very often require multidisciplinary approach and new tissue engineering techniques could sometimes be the only cure for their reconstructive needs.
MATERIALS AND METHODS
This study will show cases from the practice – patients, treated at the Clinic of plastic and reconstructive surgery at UMHAT "Dr. Georgi Stranski" - Pleven. Novel 3D-bioprinting methods will be presented as tissue engineering options for reconstruction.
RESULTS
The cases showed the challenges of the field and that besides experience and basic knowledge we need to be innovative and inventive in order to provide development and the best care for the patients that require reconstruction.
CONCLUSION
Plastic and reconstructive surgery is a specialty focused on solving different puzzles every day. One of the great challenges is reconstructing injured tissues to their previous state and restoring their normal functions. Aesthetic considerations are another obstacle that requires great concentration and abilities. Often plastic surgeons are facing the lack of tissue and are looking for innovative methods to restore them.

KEY WORDS: plastic and reconstructive, surgery, tissue engineering

NEONATAL MARFAN SYNDROME WITHOUT GENETIC PROOF

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INTRODUCTION

Marfan syndrome (MFS) is a genetic disorder affecting the connective tissue, caused by mutations in FBN1 gene which encodes fibrillin-1, a structural component of the extracellular matrix. Individuals with MFS usually present with cardiovascular problems (aortic aneurysms and dissections), skeletal and ocular manifestations. The symptoms develop during infancy and early adulthood. We describe a case of neonatal MFS.

THE CASE PRESENTATION

The full-term male neonate showed at birth characteristics and dysmorphisms suggestive of neonatal MFS, combined with the detection of severe cardiovascular disease: our patient had dolichocephaly, frontal bossing, deep sunken eyes with lens dislocation and large soft ears as well as redundant skin at the neck and pronounced arachnodactyly, joint laxity and contractures of all extremities and pectus deformity. The neonate also developed a severe cholangiopathy, with increasing bilirubin levels. Because of the elevated direct bilrirubin level, at the age of 6 weeks a liver biopsy was performed, which showed unspecified intrahepatic cholestasis.

Chest X-Ray at birth demonstrated cardiomegaly, thin ribs, scoliosis and eventuation of the right hemidiaphragm. The echocardiography revealed dilated ventricles and atriums, prolapsing mitral and tricuspid valve. There was also severe pulmonary hypertension of the neonate, that improved with NO inhalation therapy. At the age of 12 hours the child also suffered from an episode of junctional ectopic tachycardia (JET), that could be terminated with amiodarone and sedation. We also performed diagnostic ultrasound of the head, abdomen and hip joints as well as ophtalmologic and ENT examinations.

The heart failure was treated with lisonopril, bisoprolol and spironolacton, the cardiac situation slowly improved, ursodesoxycholic acid was the drug of choice to treat the cholestasis.

The combination of neonatal MFS and cholestasis has never been reported in literature up to date. We did not perform a simple FBN1 array, but a whole genome sequencing (Trio WES). This showed a non classified mutation of a gene that is connected with Ehlers- Danlos- Syndrome. The same gene was found in the mother. However non of the clinical symptoms of our neonate really fits to the genetic

diagnose. A genetic re- evaluation of FBN1 gene is pending.

CONCLUSION

Neonatal MFS is rare, severe and with poor prognosis. In our report, we outlined all physical characteristics and symptoms of the neonatal Marfan Syndrome. Nevertheless, whole exome sequencing has not been helpful in defining the diagnosis. Re-analyse of a DNA sample with specific attention to Marfan related genes is needed.

KEY WORDS: neonatal Marfan syndrome, dysmorphisms, genetic, FBN1 gene

HEPATOBILIARY SEPSIS – HOW TO RECOGNIZE AND MANAGE IT

Assoc. prof. Polina Marinova, MD, PhD
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Presenting author: Marinova P.G.*
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INTRODUCTION

Hepatobiliary sepsis (HBS) is a kind of surgical sepsis with origin of hepatobiliary system and the focus of infection comes from biliary tract, gall bladder or liver parenchyma. It is a life-threatening condition when complicate with a septic shock.

AIM

The aim of the study is to recognize the common causes for onset of hepato biliary infectuions and their progression to HBS and to create an algorithm of early diagnosis and management.

MATHERIALS AND METHODS

Literature review of the latest guidelines and expert consensus conference recommendation for contemporary understanding for sepsis and a retrospective and prospective study of patients with hepatobiliary tract infections, treated and operated at Department "Surgical Diseases" at Medical University Pleven- hospital UMHAT "D-r Georgi Stranski"-Ltd for 5 years' period. We analyzed all cases with HBS and created an algorithm for management of HBS and apply it in the prospective part of the study.

RESULTS

For the period 2016-2020 a total of 5,915 patients underwent biliary-hepatic and pancreatic surgery (BPH). Of them, 860 have diseases of the hepatobiliary tract (14.5%), as benign diseases of the hepatobiliary system were found in 730 patients (84.9%), a malignant - in 130 (15.1%).

A total of 697 patients (81%) had an infection of the hepatobiliary tract. Patients with clinically and laboratory proven hepatobiliary sepsis (HBS), are 79 of all cases with infections of biliary tract was 11.3%

CONCLUSION

The new algorithm is useful in management of patients with HBS and is a novel approach to septic patients. That steps reduce the mortality and morbidity rates among septic patients.

KEY WORDS: hepatobiliary infection, sepsis, algorithm

COLORECTAL CARCINOMA PATIENTS – DESTINIES AT CROSSROADS

Assoc. prof. Paulina Vladova, MD, PhD
Department of Coloproctology and Peptic-Septic Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Colorectal cancer (CRC) is the third most common cancer worldwide, with 1.1 million new cases per year, and is the second leading cause of cancer death. Approximately 15%-30% of patients present with metastases, and 20%-50% of patients with initially localized disease will develop metastases.
The incidence rates for colorectal cancers will increase by 90.0% and 124.2%, respectively, for patients 20 to 34 years of age by 2030. The cause of this trend is currently unknown. One review suggests that CRC that occurs in young adult patients may be clinicopathologically and genetically different from CRC in older adults, although this has not been confirmed broadly.
The so-called "small gray zone" between curable and incurable management of patients affected by CRC, has increased to "larger gray zone" through the last years. Oncologists, surgeons and other care-takers should be aware of the necessity of patients' multidisciplinary management, the periodic re-evaluation of any singular case, the timely implication of the patient and his relatives in the treatment.

GREEN NEPHROLOGY

Aygulya Akisheva
Clinic of Nephrology and Dialysis, UMHAT "Dr. Georgi Stranski", Pleven. Department of Nephrology, Hematology and Gastroenterology, Medical University – Pleven, Bulgaria.
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There has been a lot of talk about climate change over the past 20 years and the role of every single human being in it. The increase of the global temperature, extreme weather events, reduction in the amount of water on Earth, increase in CO2 and greenhouse gas emission all have an impact on kidney health and distribution of renal diseases. Studies have already proven that climate change can induce systemic dehydration, kidney stone formation, hyperosmolality, heat-induced inflammation injury, all of which can result in development of chronic kidney disease (CKD).
Ironically, the healthcare industry plays a crucial part in the environmental changes. Dialysis units are the largest consumers of water in the hospitals. Energy consumption and greenhouse gas emission levels are also among the highest in the medical sector. Furthermore, the amount of plastic use and waste products make the impact of the dialysis units on climate change one of the highest in healthcare industry. This is why there is an increased need for the nephrology community to look for strategies to reduce the negative impact on the nature by increasing the monitoring on resource usage and waste generation by renal health facilities.

KEY WORDS: nephrology, dialysis, climate change, green nephrology

WORKSHOPS

WORKSHOP 1: CLAY TO REALITY

Moderators: Prof. Partha Vaiude, FRCS*, Iren Bogeva-Tsolova, MD**
****Consultant Plastic, Aesthetic & Reconstructive Surgeon; Managing Director - Surgical Art, Liverpool; Adjunct Professor, Liverpool John Moores University***
*****Department of Plastic and Reconstructive Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria***

Groups will sculpt the transition from the foetal to the adult face, explore congenital malformations and post tumour excision deficiencies to lay the foundation of knowledge for treatment. Using theircombined anatomical, surgical and artistic knowledge and experience Professor Partha Vaiude and Dr Iren Bogeva-Tsolova will take workshop attendees on a journey of different perspectives of the face. Through visual references delegates will translate these into 3d sculptures using artistic materials. The resulting art works will be curated as an exhibit to be displayed at the conference.

WORKSHOP 2: POCUS – POINT OF CARE ULTRASOUND

Stefan Tchernodrinski MD MS*, Gabriel Georgiev, MD**, Valeri Veselinov, MD**
****Division of Internal Medicine at UI Health, Specialist in the field of General Internal Medicine, Hospital Medicine, and Point-of-care ultrasound for decision-making and procedures***
*****N. I. Pirogoff Multi-profile Active Treatment & Emergency University Hospital***
In collaboration with Infinita Medical Equipment

Point of Care Ultrasound, commonly known as POCUS, is a clinician-performed limited ultrasound at the patient bedside for rapid diagnosis and triage, or for procedural guidance. Once mastered, the method offers a dramatically expanded and accurate view of patients' anatomy and physiology as it is added to the physical exam. Multiple systems – e.g., cardiovascular, pulmonary, renal, can be viewed within minutes to provide vital information about patient condition. POCUS use has been increasing on a steep and steady trajectory. Currently two-thirds of medical schools in the United States have integrated POCUS in their curricula. Adoption for clinical practice has started more than 2 decades ago with high acuity specialties – Emergency Medicine and Critical Care, followed by all other specialties. Portability has added ease of use – nowadays a medical practitioner can carry a pocket-size ultrasound probe connected to a smart phone, at a fraction of the cost for a high-end device.

Early adopters have proved excellent diagnostic accuracy after implementation of training programs at all levels of expertise – medical students, physicians in training, and specialists. More recent studies have demonstrated diagnostic and therapeutic shifts in patient management and improved patient outcomes with POCUS use.
In summary, POCUS is on the steady rise to soon become an integral part of the medical education and practice of contemporary physicians and health-care practitioners. Investment into efforts of creating curricula, providing portable ultrasound devices, and developing POCUS experts to lead in education and practice, will pay off by improving one of the ultimate goals of healthcare – improved patient outcomes.

WORKSHOP 3: SURGICAL SKILLS WITH PRACTICE ON REAL TISSUES

Moderators: Dobromir Nguen, MD, PhD, Anislav Gabarski, MD, PhD
Department of Coloproctology and Peptic-Septic Surgery, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Surgical suturing and knot tying are one of the basic medical procedures which any doctor should be able to perform. This workshop will give the participants opportunity to practice different types of surgical sutures and different techniques for tying surgical knots.

WORKSHOP 4: MINIMALLY INVASIVE SURGERY

Moderators: ***Martin Karamanliev, MD, PhD, Meri Shoshkova, MD***
Department of Surgical Oncology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Minimally invasive surgery is the new surgical trend. Nowadays more and more laparoscopic and robotic surgeries are being performed for less traumatic outcomes for the patients. If you want to learn the intricate methods of laparoscopic surgery and how it differs from traditional open surgery, this workshop is for you! Participants will acquire the basic knowledge of minimally invasive surgery and will have the opportunities to practice it.

WORKSHOP 5: COMPUTER-AIDED DRUG DESIGN

Moderator: ***Assist. Prof. Aleksandar Pashev, Assist. Prof. Teodora Aleksandrova***
Department of Chemistry and Biochemistry, Faculty of Pharmacy, Medical University – Pleven, Bulgaria

Computer-aided drug design is of primary significance in the process of discovering new drug substances and it includes computer-based approaches, which aim to analyse key regions and interactions in macromolecules, also what is the bond between the chemical structure and the biological activity of the ligands.
In the past decades these methods are successfully used in the search and foreseeing of new drugs and biologically active substances. Molecular docking is the key tool which serves the purpose of foreseeing the pattern and the energy of bonding between small molecules in the active centre of the investigated biological target and in that way it gives information for the basic physicochemical properties which define the affinity of the molecules in the binding centre. During the scientific session the participants will get to know the software program for molecular docking and virtual screening AutoDock Vina and the graphic program for molecular visualisation PyMOL. This workshop is for those who want to acquire basic knowledge about the preparation and optimisation of ligands and receptors by specialised for this programs as well as doing docking simulations and analysing the present results aiming determination of the pharmacophoric groups and striving for future optimisation of the molecules.

WORKSHOP 6: DIFFUSION AND SPIROMETRY

Moderator: ***Nikolay Kyuchukov, MD, PhD***
Department of Pulmonology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Diffusion and spirometry are the basic diagnostic methods of pulmonology. They are helpful in assessing breathing patterns that identify conditions such as asthma, pulmonary fibrosis, cystic fibrosis, and COPD. Participants in this workshop will be given the opportunity to learn how to perform them. In addition, a demonstration of a new innovative method to asses the pulmonary function will be presented: Body Plethysmography.

WORKSHOP 7: PLASTERING BASICS

Moderators: ***Emil Simeonov, MD, PhD, Victor Mixon, MD***
Clinic of Orthopedics and Traumatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Plastering is one of the fundamental therapeutic procedures used in orthopedics and traumatology. This workshop will allow the participants to learn about the basics of plastering and will be able to actively be involved in placing gypsum.

WORKSHOP 8: PANCYTOPENIA – A CHALLENGE IN CLINICAL PRACTICE

Moderator: ***Ivaylo Hristov, MD***
Department of Hematology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria

Pancytopenia is a hematologic condition with a decrease in all three peripheral blood cell lines - red blood cells, white blood cells and platelets. This condition is a challenge for a large number of clinicians in various fields of medicine. The workshop will provide participants with clinical information including basic hematological investigations, diagnostic algorithms, criteria for diagnosis, pathogenesis, the wide range of causes and real-life clinical cases.

WORKSHOP 9: ATOPIC DERMATITIS - ATOPIC DERMATITIS – WHICH IS THE RIGHT EMOLLIENT?

Moderator: ***Veronika Gincheva, MD, PhD***
Department of Dermatology, UMHAT "Dr. Georgi Stranski", Pleven, Bulgaria
In collaboration with Pierre Fabre Laboratories

Atopic dermatitis remains a major problem for many people, especially children and their parents. It is extremely important to choose the right emollient in order to succeed in treating the disease. In this workshop you will learn how to recognise different textures and emollients, and which one is better. Moreover, you will find out more about the ways to cope with itching, a major symptom of atopic dermatitis, which deprives individuals from normal quality of life. We will focus mostly on treating pediatric patients.

WORKSHOP 10: PET-CT IMAGING – WHAT? WHEN? WHY?

Moderator: ***Preslava Ilieva-Gabarska, MD***
Department of Radiology, University Hospital "Saint Marina", Pleven, Bulgaria

As a new hybrid technology the PET CT imaging has many advantages in the modern era of the diagnostics. It is a worldwide used method for detection and visualization of many diseases in the field of oncology, haematology and inflammatory diseases. Its multidisciplinary approach provides information on the basis of which important decisions are made in the patient's therapeutic plan.

VARIA SECTION

CHAIRMEN:
Prof. Tsetsa Doichinova, MD, PhD
Assoc. prof. Dima Tsanova, MD, PhD
Assoc. prof. Armine Grigoryan, MD, PhD

SECRETARY:
Boryana Hristova, OC

As long as you live, keep learning how to live

Seneca

MONTMORILLONITE-CYTOCHROME C MINERAL-PROTEIN COMPOSITE NANOPLATES WITH HIGH IN-VITRO ANTICANCER CYTOTOXICITY FOR POTENTIAL APPLICATION IN TREATMENT OF SUPERFICIAL NEOPLASMS

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INTRODUCTION

In cancer cells apoptosis is blocked because of the incapability of their mitochondria to release cytochrome C (cytC). Therefore, the apoptosis can be triggered by the introduction of external cytC, using the ability of tumor cells to phagocytize extracellular colloid particles with submicron size on which cytC is previously adsorbed. Therefore, we use the mineral montmorillonite (MM) because of its large adsorption capacity determined by the the huge size/thickness ratio. The inability of the normal cells (apart from neutrophils and macrophages) to phagocyte colloid particles protects them and determines selectivity of composite cytC-MM.

AIMS

The aim of our study was to investigate the properties of cytC-MM nanoparticles as a function of cytC concentration in the suspension and their cytotoxicity.

MATERIALS AND METHODS

Physicochemical methods (static and electric light scattering, microelectrophoresis) were used to determine the electrophoretic mobility, number of adsorbed cytC globules per one MM monoplate, mass increment of MM monoplates at cytC adsorption, adsorbed/free ratio, concentration of cytC-MM composite particles. Furthermore, we tested the cytotoxicity of cytC-MM on colon cancer cell culture.

RESULTS

CytC solution and MM suspension had no effect on the cancer cells. In contrast, the composite cytC-MM nanoparticles killed 97% of the cells after 96 h treatment. Interestingly, the cytotoxicity was found to depend logarithmically on the concentration of cytC in the cytC-MM suspension.

CONCLUSION

The in vitro experiments demonstrate that cytC-MM composite nanoparticles have potential application in treatment of superficial neoplasms.

KEY WORDS: cytochrome C, apoptosis, cytotoxicity, nanoparticles, montmorillonite

CHOLERA- KNOWN AND UNKNOWN

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INTRODUCTION
In 2023, we commemorate the 140th anniversary of the discovery of Vibrio cholerae by the German microbiologist Robert Koch.
AIMS/OBJECTIVES
To explore uncommon and curious facts related to the causative agent, the clinical signs, measurements for treatment and prevention of this dangerous infection.
METHODS
In our research we have only used licensed medical sources - Manuals of Clinical Microbiology, scientific journals, articles on the history of Medicine, as well as data from historical documents and works of art.
RESULTS
Besides the well-known aspects, we present lesser-known and interesting information about Cholera, its discovery and pose the following questions: Was Robert Koch truly the first discoverer of Vibrio cholerae? How did people cope with the infection before the Era of Antibiotics? Are all individuals equally susceptible to the infection? Did cholera occur in Bulgarian lands and if so, when? Are we still at risk from Cholera today?
CONCLUSION
Despite the ancient recognition of this disease, it remains enveloped in mysteries and unknowns, awaiting discovery.

KEY WORDS: Vibrio cholerae, discovery, epidemiology, treatment, prevention

OXIDATIVE STRESS BIOMARKERS OF EXTREME LONGEVITY

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AIMS/OBJECTIVES
The aim of this narrative review is to analyze the published evidence on potential oxidative stress (OS)-biomarkers of successful ageing and longevity.
METHODS
English-language articles evaluating OS-biomarkers in centenarians were reviewed using the MedLine, Scopus, and PubMed databases.
RESULTS
Centenarians showed similar oxidative neutrophil activity compared with the youngest old. They had lower superoxide dismutase activity and higher glutathione reductase activity compared with the oldest old. No difference in the plasma catalase activity was reported. Blood glutathione levels in centenarians were consistent with those of young people. GSH/GSSG ratio was lower in centenarians than elderly. In most studies, higher plasma vitamin E and A levels have been reported. The erythrocyte and platelet membranes of centenarians demonstrated less sensitivity to OS, judged by decreased levels of oxidatively damaged lipids and proteins. This observation may relate to better physicochemical properties of cellular membranes in centenarians, as expressed by a higher unsaturated/saturated fatty acid ratio and increased omega-3/6 content. The plasma concentration of malondialdehyde and lipid peroxides was reduced in centenarians compared with the elderly group.
CONCLUSION
Available evidence suggests lower levels of oxidatively damaged lipids and proteins in centenarians. The significance of such an observation is difficult to interpret and likely involves the interplay between genetic and environmental factors that takes place throughout an individual‘s lifetime. Future studies may allow replication of centenarian biology in the average person.

KEY WORDS: oxidative stress, biomarkers, antioxidants, longevity, centenarians

BACTERIOLOGICAL INVESTIGATION AND IMPACT OF CORYNEBACTERIUM SPP. ISOLATED FROM CLINICAL SPECIMENS

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INTRODUCTION

Many Corynebacterium species exist as normal skin and mucous human flora. Their etiological significance is unclear.

AIMS/OBJECTIVES

To analyze all Corynebacterium strains isolated from clinical materials of patients treated in UMHAT – Pleven for the past 11 years.

To determine the most frequent types of infections caused by diphtheroids and to examine resistance to antimicrobial agents.

MATERIALS AND METHODS

The survey includes 104 Corynebacterium strains and associated genera isolated from 99 patients' clinical materials between 2012-2023 and does not include urine specimens. The cultivation of bacterial pathogens was done on blood agar with 5% blood sheep. Identification of the diphtheroids was performed by cellular and colonial morphology and rapid biochemical tests. Definitive identification of some of the strains – by automated systems. Susceptibility determination to antimicrobial agents was done by disk-diffusion method and by minimal inhibitory concentrations (MICs) according to EUCAST and CLSI.

RESULTS

Most of the patients – 48,48% were treated in surgery wards. Relative share of isolated Corynebacterium spp. is as follows: wound infections – 49 (47,11%), respiratory tracts infections – 26 (25,0%), blood infections – 15 (14,42%), and rarely other body sites. In 72 of the cases the infection was monobacterial. In the rest 32 – the diphtheroids were in association with other Gram-positive or Gram-negative bacteria but Corynebasterium spp. were dominating.

The pathogens show best susceptibility to Vancomycin, Linezolid, Tetracyclines and highest resistance to Quinolones and Clindamycin.

CONCLUSION

Infections caused by diphtheroids are rare but could be serious and life-threatening. Corynebacterium spp. are most frequently associated with wound, respiratory tract and blood infections. They show high resistance to antimicrobial agents.

KEY WORDS: Corynebacterium spp., infections, impact, diphtheroids

EDUCATION AND WORK – MISSION POSSIBLE

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AIMS/OBJECTIVES
Presenting an analysis of results showcasing the opinion of medical students regarding the opportunity and necessity of employment during the course of their study. To analyse their experience and opinion on the correlation between work and education.
MATERIALS AND METHODS
The research includes an online survey, targeted at assessing the work habits of 55 students from various specialties in Medical university Pleven, and their opinion on the necessity of employment during their study as well as its impact on their education and future realization.
RESULTS
In the research participated 55 students – 35 women and 19 men, aged 19-39, from all years of education. 34 of them are currently working, 4 have worked before, and only 1 had never worked during the course of their study. From all workers only 3 are not in the healthcare system. Over 75% of the participants consider that their experience has been beneficial to their education and future development.
CONCLUSION
There‘s a tendency to higher employment rates amongst students, despite the tremendous pressure and lack of free time. The students point out different reasons for starting work but are fully in support of the opinion that they are benefiting from it, both now and in the future.

KEY WORDS: work, education, students

PICTURING CORONARY PATHOLOGY POSTMORTEM: ADVANCEMENTS IN FORENSIC CARDIAC IMAGING WITH POSTMORTEM INFRARED CORONARY ANGIOGRAPHY

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AIMS/OBJECTIVES
Precise postmortem diagnosis of coronary pathology, including acute coronary insufficiency leading to myocardial ischemia and infarction, is crucial in forensic medicine. Conventional autopsy methods may compromise heart integrity and lack modern forensic precision. Recent innovations offer non-invasive alternatives for improved accuracy. This article explores the development and practical use of novel postmortem cardiac imaging, specifically Postmortem Infrared Coronary Angiography (PIC).
MATERIALS AND METHODS
PIC, was adapted from the pioneering work of Fais et al. (2018), use a FLIR Thermal Lepton 3.5 camera integrated into a Cat S62 Pro mobile phone. Warm water (60°C) assessed coronary vessel patency, aided by a 3D-printed catheter clamp.
RESULTS
Combining PIC with the FLIR camera and the 3D-printed clamp allowed comprehensive assessment of coronary pathology. Thermal imaging visualized vessel patency and potential occlusions. The clamp enhanced stability and catheter precision. PIC proved non-destructive, reproducible, and cost-effective, enhancing postmortem cardiac evaluation.
CONCLUSION
PIC with the FLIR camera represents a significant advancement, offering objectivity and non-invasiveness suitable for routine forensic use. Ongoing research should address tissue-specific factors affecting thermal conduction. Innovations in postmortem cardiac imaging, specifically Postmortem Infrared Coronary Angiography (PIC), hold the promise of significantly enhancing forensic medicine by offering valuable improvements in diagnostic accuracy for coronary pathology. These methods contribute to a more objective assessment of sudden death cases, emphasizing the need for continued research and development to further refine these techniques for routine forensic application.
KEY WORDS: postmortem infrared coronary angiography, FLIR thermal camera, forensic medicine, coronary pathology, sudden death diagnosis

THE BRILLIANT ROBERT KOCH

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AIMS/OBJECTIVES
2023 marks the 180th anniversary of Robert Koch`s birth. The purpose of the report is to chronologically reveal his greatest discoveries and scientific contributions as well as to uncover little known facts about his personal and professional life.
METHODS
The research includes scientific publications, biographical data and medical history articles.
RESULTS
The report emphasises on the introduction of solid media in microbiology, the discovery of Vibrio cholerae, Mycobacterium tuberculosis, the production of tuberculin as well as Koch‘s postulates. Special attention is paid to his co-workers` researches and contributions to medical science. The report also presents his weaknesses, unusual habits and singularities.
CONCLUSION
Robert Koch was one of the most important and influential bacteriologists who ever lived. His endeavour will remain in the history of microbiology, medicine and humanity. After almost two centuries, his discoveries and scientific conclusions have not lost any of their significance.

KEY WORDS: Robert Koch; discoveries; contributions

THALASSOTHERAPY IN PATIENTS WITH DIABETIC POLYNEUROPATHY

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INTRODUCTION

Diabetes mellitus is a chronic metabolic disease. Genetic predisposition and lifestyle play an important role in the increasing incidence. The growing epidemic of type 2 diabetes is a global medico-social problem and a major burden on the world economy. It is characterized by a high frequency of vascular complications.

Diabetic polyneuropathy is a heterogeneous group of neurological disorders with diverse clinical symptoms. It worsens the quality of life of patients and often leads to disability. The term thalassotherapy comes from the Greek words "thalassa" - sea and "therapy" - treatment. Its application dates back to ancient Egypt, and nowadays it finds a place in the treatment and prevention of many diseases. Thalassotherapy combines the two parts of resort therapy - climate therapy and balneotherapy. Marine climatic factors are aerotherapy and heliotherapy. Sea balneotherapy includes: sea bathing, algotherapy, treatment with sea lye, sea mud therapy and psamotherapy.

AIMS/OBJECTIVES

Revealing the nature, biological effects and impact of thalassotherapy on diabetic polyneuropathy and related motor and sensory disorders.

MATERIALS AND METHODS

Analysis of literature sources in the PubMed databases and specialized literature, regarding the application of thalassotherapy in patients with diabetic polyneuropathy.

CONCLUSION

Sea air conditioning and balneotherapy are an effective method for improving the quality of life of patients with diabetic polyneuropathy. Their controlled application has a long-lasting clinical effect on patients in the absence of side effects.

KEY WORDS: diabetes mellitus, diabetic polyneuropathy, spa treatment, thalassotherapy

MEMBRANACEUS FAT NECROSIS OF THE BREAST

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AIMS/OBJECTIVES
To present a case of membranaceus fat necrosis found in biopsy of a female patient's breast tissue in the 8th decade of her life.
METHODS
The patient's past medical history was significant for surgical treatment for breast cancer 28 years prior to the current presentation. Before the biopsy was taken, she presented with a painless, palpable lump, suspicious for malignancy on imaging. Histology was evaluated on H&E stained slides and immunostained slides with CD68 and CK AE1/AE3.
RESULTS
Histological findings were significant for chronic, productive non-specific inflammation, with presence of small cysts, containing macrophages and eosinophilic membranaceus materials, forming papillary-like projections.
CONCLUSION
Membranaceus fat necrosis is rare type of necrosis that is rarely encountered in the routine practice and may pose a significant differential diagnosis dilemma. The presented case demonstrates a useful approach to the diagnosis of membranaceus fat necrosis on formalin fixed, paraffin embedded samples, including classic histochemistry and immunohistochemistry.

KEY WORDS: membranaceus fat necrosis, diagnostic approach

NUTRITION AND MEDIA INFLUENCE

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AIMS/OBJECTIVES

Media information directly and indirectly influences human behavior: formation of short-term and stable attitudes about the surrounding world.

The purpose of the present work is to clarify the influence of social media (radio, television, internet, etc.) on eating habits. Dietary style and understanding of food has become an expression of one‘s own identity. Advertised foods are described as wholesome and healthy, but according to medical experts, some products adversely affect health.

METHODS

Social media is available anytime, anywhere, which defines the consumer behavior of young people between 14 and 29. This age group has grown up with social media and various forms of communication.

A survey was conducted among 42 young people aged 17-19 and 27-29 years, questioned about the change in their eating behavior influenced by information through various forms of social networks.

RESULTS

82% of the first age group regularly use social networks, which affects their eating habits. A privileged source of information from teenagers is online video sharing. They perceive information presented about food products and food preparation by influencers who have no education in the field. Another group, employees of various professions (61%), seek different perspectives on nutrition using authored publications. Both groups did not rate their eating habits highly. Modern media can have both positive and negative effects on the dissemination of health information.

CONCLUSION

The results show that the media influences food perception and eating habits. The mass media, working with medical specialists in nutrition and dietetics, can form a healthy lifestyle tailored to different target groups.

KEY WORDS: food habits, media

INTERNAL MEDICINE SECTION

CHAIRMEN:
Prof. Snezhana Tisheva, MD, DSc
Assoc. prof. Margarita Vlahova, MD, PhD

SECRETARY:
Sofia Yoshovska, OC

Wherever the art of medicine is loved, there is also a love of humanity

Hippocrates

LONG-TERM FOLLOW-UP OF ASTHMA CONTROL AMONG ASTHMATIC PATIENTS

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INTRODUCTION
Various questionnaires for self-assessment and monitoring of bronchial asthma (BA) control are available. Asthma Control Test (ACT) is a questionnaire, which corresponds with the clinical symptoms, the need of therapy correction and risk of future exacerbation.
AIMS/OBJECTIVES
To follow-up the control of asthma with ACT for a three year period among asthmatic patients and to analyze the factors, which affect BA control.
METHODS
A cohort of 334 patients with BA completed ACT during their routine ambulatory visits. Patients were followed-up for a three year period and a statistical analysis was performed.
RESULTS
At the beginning of the follow-up (2014) patients with poor BA control were 38 (11.38%), with partly controlled - 108 (32.34%) and with good control were 141 (42.22%). The number of patients with poor BA control increased to 55 (16.47%) at the end of the follow-up (2016). Patients, who remained stable, with good BA control for the whole period were only 37 (3.29%). Factors significantly affecting BA control were asthma severity(p0.05), smoking status (p=0.031) and the number of hospitalizations (p0.01). Patients with good BA control were predominantly rural dwellers (p0.05) and presented with better reversibility after post-bronchodilator test (p0.05) compared to patients with partly and poorly controlled asthma.
CONCLUSION
Asthma patients that we followed were unstable regarding their asthma control and often changed their control status from one level to another during long term follow-up. The factor, which could be modified to gain better asthma control, was smoking.

KEY WORDS: asthma control, follow-up, ACT

A CASE OF EXACERBATION OF ASPERGILLOSIS IN A PATIENT POST-COVID-19 INFECTION

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INTRODUCTION

The inhalation of Aspergillus spores into the lungs causes aspergillosis. In immunocompetent patients, the fungi are not able to thrive, however, when the immune system is compromised, the fungi are able to grow and cause the disease known as aspergillosis. As the infection progresses, an aspergilloma will form in the lung cavities causing symptoms such as fever, chest pain, cough, hemoptysis and dyspnea.

THE CASE PRESENTATION

A 74-year-old, ex-smoker, employed in poultry farming arrived at the clinic for the 1st time with worsened symptoms since his COVID-19 infection a year and a half ago. The patient presented with a productive cough with yellow-green sputum, 6 months of intermittent dull left-sided chest pain, weight loss of 30 kg in the last year, a decreased appetite and intolerance to odours. He also had a history of an aspergilloma in 2021 to which he administered itraconazole and Fungizole as treatment. Upon admission, Complete Blood Count showed leukocytosis and a chest X-ray revealed bilateral infiltrates. A sputum sample was collected and contained aspergillosis organisms.

CT scan showed a partial pneumothorax on the left with the formation of a new pleural cavity with aspergillomas in it. The observed cavitary lesions with aspergillus macromorphology on the left. It also showed Emphysematous pulmonary parenchyma with single bullae measuring up to 35mm. Video Bronchoscopy indicated atrophic mucosa and a Bronchoalveolar lavage (BAL) sample was positive for aspergillus fumigatus, M.pneumonia and streptococcus. For treatment, the patient was given Sulcef (Cefoperazone and Sulbactam), Metronidazole, Methylprednisolone, inhalations with 4% sodium chloride and was discharged after showing signs of improvement and will be followed up in the clinic.

CONCLUSION

This case portrayed one of the complications of COVID-19 infection in a patient with an existing aspergilloma. It resulted in a deterioration of the patient's health due to the COVID-19 infection allowing his lungs to become vulnerable to an aspergilloma.

Prophylactic treatment should be given to patients with existing aspergilloma post-COVID-19 infection to prevent the worsening of their symptoms. It is essential to avoid such complications, especially in immunocompromised and ageing patients.

KEY WORDS: Aspergillosis, COVID-19 infection, BAL

IDIOPATHIC PULMONARY FIBROSIS (IPF) - WHAT ELSE IS BEHIND YOUR MASK ? CASE STUDY

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INTRODUCTION

Idiopathic pulmonary fibrosis (IPF) is a rare chronic lung disease where gastro-oesophageal reflux, acute and chronic infections, pulmonary hypertension, lung cancer (LC) and cardiovascular diseases are often described as comorbidities in patients with IPF. If comorbidities remain unidentified and untreated, they may impair the respiratory function and lead to poor therapeutic results from the antifibrotic therapy.

CASE PRESENTATION

A case of a male patient (76yrs), diagnosed with IPF was studied. Because of lymphadenopathy and suspicious malignant lesion on CT scan, a fibrobronchoscopy was performed during his first hospitalisation. Since the histological result was negative, the clinical committee approved the patient for antifibrotic therapy and a follow up for 3 months was conducted. During his last hospitalisation, he was rescanned where the lung lesion was described as a malignant lesion with metastasis. The physical performance of the patient was extremely poor therefore he was not subjected to a second endoscopic evaluation, instead the final diagnosis was based on clinical and imaging data leading to a recommendation of palliative therapy.

CONCLUSION

IPF itself leads to a poor physical status due to the severe respiratory failure in the end-stage of the disease. Concomitant diseases such as LC intensify the decreasing lung function resulting in poor prognosis for the patient.

KEY WORDS: IPF, lung cancer, comorbidity

TRACING DILATED CARDIOMYOPATHY'S ROOTS: A CASE STUDY IN ETIOLOGICAL AMBIGUITY AND STANDARDISED MANAGEMENT

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INTRODUCTION

Dilated cardiomyopathy (DCM) is a cardiac disorder characterised by the enlargement and weakened function of the heart's main pumping chamber, the left ventricle. DCM can result from various factors, including genetic predisposition, infections, toxins and underlying medical conditions. Understanding its aetiology, clinical presentation and management is crucial for improving a patient's outcome and advancing therapeutic approaches.

CASE PRESENTATION

We examined a 47-year-old male patient presented with fatigue, dyspnea at rest, and exertional epigastric pain along with a history of arterial hypertension. Notably, he consumed 100 ml of alcohol every night. Diagnostic tests including coronary angiography and echocardiography revealed atrial fibrillation, dilated cardiomyopathy, ECG changes and coronary irregularities without significant stenosis. Ischemic heart disease was ruled out, favouring dilated cardiomyopathy with uncertain origin - possibly toxic alcohol, post-myocarditis, or idiopathic. Treatment included Entresto and SGLT2 inhibitors, initiated in-hospital and continued outpatient with home therapy. After the treatment, the patient was discharged hemodynamically stable with good control of BP and HF, under strict restriction on alcohol consumption.

CONCLUSION

Irrespective of the underlying causative factors, the management protocol for dilated cardiomyopathy remained standardised. The patient underwent a treatment regimen consisting of SGLT2 inhibitors, Entresto, beta-blockers, aldosterone antagonists, oral diuretics and anticoagulants. This therapeutic approach yielded a favourable prognosis for the patient.

KEY WORDS: dilated cardiomyopathy, ischemic heart disease, toxic alcohol, post-myocarditis

ALCOHOL SEPTAL ABLATION FOR HYPERTROPHIC OBSTRUCTIVE CARDIOMYOPATHY – A CASE REPORT

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INTRODUCTION

Hypertrophic obstructive cardiomyopathy (HOCM) is a disease in which the heart muscles get hypertrophied or thickened which can make the heart harder to pump blood. This thickened heart muscle can cause shortness of breath, chest pain and arrhythmias in symptomatic patients. Alcohol septal ablation is a minimally invasive procedure to treat Hypertrophic obstructive cardiomyopathy.

CASE PRESENTATION

We report the case of a 76-year-old patient who was presented with fatigue, dyspnea at exertion, chest discomfort for the past 4 years and one episode of dizziness in the last 6 months. After performing several tests including a coronary angiography and ventriculography the patient was diagnosed with HOCM. The heart team declared that the patient was a suitable candidate for Alcohol septal ablation. This catheter-based procedure uses the controlled infarction of the hypertrophied septum to remove the dynamic outflow obstruction. It does this by injecting 100% ethanol into the septal perforator. This gradient reduction has been linked to both left ventricular remodelling and a considerable clinical improvement in the patient's symptoms. The procedure was performed and it was successful. After the procedure left ventricular gradient reduction was achieved and the patient's condition improved quite well.

CONCLUSION

In this case report we highlight the benefits of alcohol septal ablation for HOCM in reducing the left ventricular outflow tract pressure gradient and drastically improving the condition and quality of life of the patient.

KEY WORDS: ablation, cardiomyopathy, ventricular gradient, hypertrophy

PULMONARY EMBOLISM IN CLINICAL PRACTICE

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INTRODUCTION

A case of a 27-year-old woman presenting with acute massive pulmonary embolism (PE) treated using systemic thrombolysis with rtPA.

THE CASE PRESENTATION

A hemodynamically unstable 27-year-old woman presenting in the Emergency Department with acute tachydyspnea, dull chest ache, palpitation and syncope. No known previous illnesses or risk factors. ECG recorded S1Q3T3 sign. Echocardiography showed acute right heart strain (D-shaped RV, positive 60/60 sign, positive McConnell sign, TAPSE 7 mm). Lab results showed D-dimer 40,35, elevated troponin. A CT pulmonary angiography was performed: a massive filling defect - a thrombus in both main pulmonary arteries continuing to the segmental arteries - saddle pulmonary embolism. Based on current ESC guidelines for the treatment of high-risk PE a systemic thrombolysis with Alteplase was performed, followed by a continuous UFH (unfractionated heparin) infusion for 48 hours and application of LMWH (factor Xa inhibitors) for 8 days. Recommendation was given that a DOAC be taken for at least 6 months after discharge.

CONCLUSION

A high-risk massive pulmonary embolism treated using systemic thrombolysis with rtPA in a young patient with no known contributing risk factors. After the hospital stay the patient was referenced to the Medical University Biochemistry Lab to be tested for thrombophilia.

Key Words: PE, systemic thrombolysis, thrombophilia suspicion

A CASE OF ACUTE PYELONEPHRITIS IN THE POSTPARTUM PERIOD

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INTRODUCTION

Postpartum infections are infections connected to pregnancy that develop in the period between the rupture of the amniotic sac and the 42nd day after birth. Urinary tract infections (UTIs) are the second most frequent type of postpartum infection, following endometritis. Their frequency is from 2 to 4%, including both lower UTIs and pyelonephritis. Around 75% of the postpartum UTIs develop in the first 15 days after delivery and the primary risk factors include operative delivery, bladder catheterization during birth, complications during pregnancy, etc.

CASE PRESENTATION

This is a case of a 32-year-old female patient, admitted to the Clinic of Nephrology and Dialysis at University Hospital "Dr. Georgi Stranski", Pleven, with clinical signs of UTI (left-sided lumbar pain, dysuria, fever, nausea and vomiting). A month before that the patient gave birth to a healthy child from a normal pregnancy. The results of the urine culture showed significant bacteriuria with isolated Staphylococcus epidermidis. The patient had ultrasound data for left-sided hydronephrosis. After antibiotic treatment, with temporary termination of breastfeeding, the patient's condition improved and she was discharged with no further complications.

CONCLUSION

UTIs should not be underestimated, especially in the postpartum period, as they can impact the recovery of women after giving birth. Antibiotic treatment should be performed carefully and a temporary termination of breastfeeding is recommended during treatment.

KEY WORDS: UTIs, pregnancy, postpartum period

NASAL CARRIAGE OF STAPHYLOCOCCUS AUREUS IN CHRONIC HAEMODIALYSIS PATIENTS

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AIMS/OBJECTIVES
To study the frequency of staphylococcal carriage in chronic haemodialysis patients over a three-year period. To analyze the resistance patterns of the isolated strains.
MATERIALS AND METHODS
The study covers 138 patients on chronic haemodialysis, takes place in UMHAT Pleven for the time span of the years 2020-2022. There are a total of 357 materials researched. From which: nasal smears: 268, skin at the puncture site of the catheter: 53, cvc: 3, blood cultures: 30 and wound discharge: 3. The identification of isolated strains and the determination of antibiotic resistance is carried out by conventional methods and automated systems.
RESULTS
The analysis includes 138 patients, with an average age of 60 years old. Nasal carriage is proven in 35 patients (25.6%), in 21 patients the carriage has been persistent, in 14- intermittent and 103 (74,6%) have been nasal non-carriers. In 11 of the cases of S. aureus there is a proven correlation between the infection and the staphylococcal nasal carriage. In 24 other patients no such correlation has been proven. The isolated strains are susceptible to various antibiotics. The highest resistance is observed to Penicillin G. Only 1 (2.8%) of the strains is MRSA and 4 (13%) are iMLSb.
CONCLUSION
The nasal carriage of S.aureus is not always directly linked to the development of infections. Most of the strains are community acquired, which explains their high susceptibility to antimicrobials.

KEY WORDS: S.aureus, nasal carriage, infection

CD56 ANTIGENIC EXPRESSION AS A DETERMINANT FOR POOR PROGNOSIS IN PATIENTS WITH ACUTE MYELOID LEUKAEMIA

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AIMS/OBJECTIVES
The purpose of our study was to evaluate the clinical significance of CD56 expression on leukaemia cells, with the prognosis in patients with acute myeloid leukaemia (AML).
METHODS
This was a retrospective cohort study of patient medical records. A cohort of seventy-three patients were included in the study, admitted at the Haematology Department, Dr. Georgi Stranski University Hospital in Pleven, Bulgaria between 2018 and 2023, with an AML diagnosis and a flow cytometry report, including CD56 as a studied marker.
RESULTS
Sixty cases (82%) showed no CD56 antigenic expression, while 13 cases (18%) demonstrated positivity and were studied further. The median age of the cohort with positive expression was 71 years, and a female-to-male prevalence of 5.5:1 was noted. AML FAB subtypes M0, M4, and M5 represented 30.7%, 23.1%, and 46.2% of cases respectively. RT-PCR results from two cases showed internal tandem duplication of the FLT3-ITD gene. The overall survival was significantly lower among patients with CD56 expression (median 1.5 months; ranging from 2 weeks to 60 months), than those without expression (median 4 months; ranging from 1 week to 48 months).
CONCLUSION
The data suggests the prognostic significance of CD56 expression as a marker for determining a poor clinical outcome among patients with AML.

KEY WORDS: CD56, leukaemia, myeloid, AML, prognosis

TWO CLINICAL CASES OF PATIENTS DIAGNOSED WITH B- CHRONIC LYMPHOCYTIC LEUKEMIA- THERAPEUTIC CHALLENGES

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INTRODUCTION
The end of the 1990s marked the beginning of a new era in the treatment of CLL - the so-called era of targeted therapy. Bruton tyrosine kinase inhibitors are one of the first drugs of this group, proven over time with their effectiveness and safety profile.
AIMS/OBJECTIVES
In the present report, we present a brief review on the application of BTKI in the field of haematology and present two clinical cases from our practice in which drugs from this group were used as first-line therapy.
METHODS
For this purpose, we used a documentary method, imaging studies, flow cytometric and FISH analysis.
RESULTS
The presented clinical cases support the effectiveness of BTKI drugs as the treatment of choice in patients with unfavourable cytogenetic aberrations such as del(11q).
CONCLUSION
The therapeutic approach to these two patients with B-CLL by introducing target therapy (BTKi) improved the survival rate.

KEY WORDS: Bruton tyrosine kinase inhibitors, B-Chronic lymphocytic leukemia, target therapy, leukemia

TAKAYASU ARTERITIS-A DISEASE ONCE IN A MILLION: A CASE REPORT

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INTRODUCTION

Takayasu arteritis (TAK, "Pulseless disease") is an inflammatory granulomatous vasculitis that damages large and medium arteries and their branches. This can lead to stenosis, occlusion, or aneurysmal degeneration. The aetiology of the disease is largely unknown, but an autoimmune mechanism is suspected.

THE CASE PRESENTATION

We present a case of a 44-year-old female patient with symptoms of acute inflammation of the right middle ear, mastoiditis and labyrinthitis. After antibiotic treatment for two weeks with no significant effect the patient was hospitalised in the ENT department of UMHAT "Dr. Georgi Stranski" - Pleven. Due to persisting symptoms of perichondritis, the patient was admitted in the Rheumatology department for further examination. Laboratory tests showed leukocytosis, high CRP rate, iron-deficiency anaemia, high levels of rheumatoid factor, antibody tests-the diagnosis of "relapsing polychondritis" was accepted.

In order to detect the location of an active inflammatory process, a 18F-FDG PET/CT, held in MC "St. Marina-diagnostics and therapy" Pleven, was performed. It showed diffusely increased metabolic activity in the vascular wall of the two common carotid arteries, thoracic and abdominal aorta and femoral arteries alongside with reaction of the perivascular adipose tissue (periarteritis)-suspecting of Takayasu arteritis. The patient was admitted in the Rheumatology department in UMHAT "St. Ivan Rilski '' - Sofia due to persisting symptoms of fever, fatigue and weight loss and no improvement in laboratory results. The diagnosis "Takayasu arteritis" was confirmed.

In the next few months, the patient had 6 Cyclophosphamide infusions, with no

clinical symptoms after the second infusion. Most laboratory tests are normal, only the leukocyte count is slightly elevated. There are three more infusions planned, along with a new 18F-FDG PET/CT scan in order to evaluate the inflammatory process.

CONCLUSION

In TAK patients with early diagnosis and right treatment a lasting remission is often observed. Late diagnosis and inadequate management can lead to progress of the inflammatory process and severe complications.

KEY WORDS: Takayasu, PET/CT, inflammation, diagnosis

DOES STRESS REDUCE THE EFFICIENCY OF THE IMMUNE SYSTEM?

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AIMS/OBJECTIVES
This research project aims to investigate the effects of stress on the efficiency of the immune system. It provides research ideas, analysis of stress and its effect on the physiological functions of the body. It is a huge topic of discussion and has been researched extensively. It involves many supporting and contradicting ideas about stress and how it should be treated. The topic is current, extensive, challenging and lends itself to an in-depth evaluation of psychological and scientific arguments.
MATERIALS AND METHODS
It examines the available scientific evidence of the physiological changes and determines the future implication of the research. Whilst appraising the evidence, the project also discusses and evaluates the merits of alternative explanations for the changes caused in the body due to stress. For further investigation, a small scale experiment was carried out at the Medical University of Pleven to explore the effects of stress on the immune system.
RESULTS
The results of this investigation and research analysis provide sufficient data to form a conclusion. They suggest that stress weakens the immune system and overall health and wellness of an individual.
CONCLUSION
The project concludes that stress does reduce the efficiency of the immune system but it is not always directly linked with the immune system's dysfunction. A lot of the time stress causes physiological changes in the body which in turn cause disease and other health issues.

KEY WORDS: stress, immune system

NEUROLOGY, PSYCHIATRY & NEUROSURGERY SECTION

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Assoc. prof. Kaloyan Stoychev, MD PhD

SECRETARY:
Kristina Peeva, OC

The physician should not treat the disease but the patient who is suffering from it.

Moses Maimonides

EATING DISORDERS - A REFLECTION OF STRESS IN OUR LIVES

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INTRODUCTION

The topic of the relationship between stress and the eating disorders to which we are exposed is a contemporary issue that affects all age groups. Eating disorders are a current health problem, which can be caused or intensified by stress. Due to the lack of awareness on the subject, many adolescents do not realize that their problems with eating habits are characterized as a "disorder." Food is the easiest way to cope with stress – a source of instant dopamine. Dealing with stress through food is the basis for many diseases related to gut microbiome, ulcers, psychosocial diseases.

AIMS/OBJECTIVES

The present report presents a study on the impact of daily stress on three age groups. All individuals are exposed to high levels of daily stress .They have different social backgrounds. The goal of this study is to trace, through psychological and instrumental methods, the level of stress and coping mechanisms, as well as how they reflect on the eating habits of the study groups. It also assesses their familiarity with the term "eating disorder".

MATERIALS AND METHODS

To achieve this goal, the following tasks have been set:
Conducting a survey among the groups using psychological self-assessment questionnaires to determine their stress profiles, their eating habits, psychological predisposition to disorders, and their level of knowledge on the subject.
Data collection methods used:
Psychological instruments - questionnaires to assess resilience levels, perceived stress levels, eating habits, and the relationship with the dependence syndrome, depressive states, recurrent depressive disorder, and eating disorders (as formulated by the "Mental and Behavioral Disorders" ICD-10).

RESULTS

The obtained results will provide a clear assessment of the state of society affected by eating disorders, as well as the leading stress factors responsible for psychosocial nutritional problems.

CONCLUSION

It is vital to establish the connection between daily stress levels and problems with eating habits.

KEY WORDS: disorder, food, stress, people, bulimia, psychosocial diseases

IMPACT ON QUALITY OF LIFE IN PATIENTS TREATED WITH LAI'S

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INTRODUCTION

Schizophrenia is the most serious psychiatric disorder with many consequences and complications. The most severe deviation is that of the functioning of the individual.

AIMS/OBJECTIVES

Presenting an analysis of results in regard of the benefits of treatmnent with LAI's in patients, diagnosed with schizophrenia and the positive impact on their quality of life for the span of a year.

MATERIALS AND METHODS

The research includes 37 patients in which had been initiated treatment with LAI's and maintained for a year, during which they are tested regularly to evaluate the dynamics in their functioning and quality of life using special scales. Results are processed by standard statistic methods.

RESULTS

The research includes 37 patients. During regular check-ups for a year, patients report of subjective improvement in many spheres of life.

CONCLUSION

Treatment with LAI's has an undeniable positive and lasting effects in the treament of patients with schizophrenia in regards of managing their condition and also improving their quality of life by providing them bigger freedom and emotional emancipation from the illness making them more compliable with the treatment, as well as definite betterment in their social engangement, employment, interpersonal communication, controlling side effects from treatment and others.

KEYWORDS: schizophrenia, functioning, scales

COMPLEX CRANIAL RECONSTRUCTION FOLLOWING CALVARIAL AND DURAL DESTRUCTION BY BASAL CELL CARCINOMA: A MULTIDISCIPLINARY APPROACH AND CASE ANALYSIS

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INTRODUCTION

Basal cell carcinoma (BCC) is the most common skin cancer in humans. Intracranial invasion by basal cell carcinoma is extremely rare. The gold standard for treatment of basal cell carcinoma is surgical excision with reconstruction techniques.

CLINICAL CASE

We present a clinical case of a 75-year-old female patient who has entered the Neurosurgery clinic of "Saint Marina" University Hospital with headache, hemiparesis of the right leg, increased intracranial pressure and 10x10cm skin and bone defect in both parietal bones with extension to the subdural space. CT scan has found evidence of a neoplastic process infiltrating both parietal bones, the dural and subdural space. Under general anesthesia, craniectomy with precide removal of the basal cell carcinoma infiltrating the cranial bone was performed. Surgical debridement of the dural space was performed by microsurgical technique and the subdural space was inspected under ultrasound control. Layered closure of the skin and soft tissues was performed after the removal of the basal cell carcinoma. Reconstruction as the shape of the skull was carefully modified and adapted to its initial size and form. As a result, a good cosmetic effect was achieved. Postoperatively, the patient was mobilized on the day after intervention. Surgery-related complications were not observed. The patient had relief of her symptoms and was discharged on the 5th day with follow-up with a plastic surgeon.

CONCLUSION

Successful treatment of basal cell carcinoma can be accomplished in a one-stage procedure, through a safe surgery in combination with a multidisciplinary approach with plastic surgeons to achieve good cosmetic results.

KEYWORDS: case report, basal cell carcinoma, CT scan, skull reconstruction;

NEUROPSYCHIATRIC DISORDERS IN A PATIENT WITH FOCAL ENCEPHALITIS: A CASE REPORT

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INTRODUCTION

Encephalitis is an acute infection of the brain parenchyma that clinically results in fever, headache and altered level of consciousness. Brain parenchymal infections are mostly viral: HSV-1,2, EBV, CMV, etc. It is also known that encephalitis can be autoimmune (anti-NMDAR). Possible consequences are neurological deficits, focal or generalised seizure activity, etc. In our case study, we report on a patient who at first presented with quantitative and then qualitative disturbances of consciousness.

THE CASE PRESENTATION

A previously healthy 66-year-old man was brought to the emergency department because of loss of consciousness with tonic-clonic seizures provoked by exposure to high temperatures. The initial examination revealed an extremely high blood pressure (RR - 220/110). The patient was admitted to the local hospital for imaging and management of his condition. During his stay, the patient experienced continuous derealization and xanthopsia. The CT scan revealed a hyperdense area in the region of the right thalamus which was initially interpreted as a haemorrhagic zone, but the MRI denied it. The differential diagnostic plan became extremely broad. A wide range of procedures including LORETA (Low-resolution electromagnetic tomography analysis) were carried out to assess his condition. After examination of the cerebrospinal fluid (CSF), focal encephalitis was diagnosed as the most likely cause of his condition.

CONCLUSION

The clinical presentation of focal encephalitis can vary, as we have seen in this patient. Psychiatric disorders are like a mask in front of an organic pathology in the brain. Although it is a difficult task, neurologists must pay attention to these types of encephalitis manifestations because of their neuropsychiatric reversibility.

KEY WORDS: encephalitis, neurological deficits, neuropsychiatric disorders, LORETA

ARTERIOVENOUS MALFORMATION OF THE SPINE: CASE REPORT

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INTRODUCTION

Spinal arteriovenous malformation (AVM) is a tangle of blood vessels on, in or near the spinal cord. Oxygen-rich blood usually enters the spinal cord through arteries, which branch into smaller blood vessels (capillaries). In an AVM, the blood passes directly from the arteries to the veins and goes around the capillaries.

THE CASE PRESENTATION

We present a case report of a 38-year-old male patient who has been admitted in the Neurosurgery clinic of UMHAT "George Stranski" – Pleven with clinical manifestation of numbness in his lower limbs in the thigh area, impaired gait, examined bilaterally weakened knee reflex. MRI scan of the lower back discovered an intradural extramedular AVM formation on level L2 compressing cauda equine. An operative treatment was performed through a partial L1 laminectomy and L2 laminectomy and total excision of a subdural tumor by microsurgical technique. Postoperatively the patient was in good overall condition with reduction of the complaints and none observed complications.

CONCLUSION

Most common symptoms of AVM are pain or unusual sensation through the body, problems with balance and coordination and weak or paralyzed muscles. Diagnose can be difficult because of similarity with other conditions such as spinal dural arteriovenous fistula, spinal stenosis, multiple sclerosis or a spinal cord tumor. The goal of the treatment is to reduce the risk of hemorrhage and stop or prevent the progression of disability and other symptoms.

KEYWORDS: arteriovenous malformation, laminectomy, cauda equine

A CASE STUDY OF A COMPLEX THORACOLUMBAR JUNCTION COMPRESSION FRACTURE

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INTRODUCTION

Compression fractures in the lumbar spine and thoracolumbar junction are one of the most frequent types of spine injuries occurring above the age of 50. They can be the result of trauma or underlying conditions causing bone insufficiency. Our aim is to introduce the case of a patient with complex compression fracture in the thoracolumbar junction with coexisting pathologies and assess the post-operative clinical outcome.

THE CASE PRESENTATION

We present a case report of a 68-year old female patient who has presented to the Neurosurgery Clinic of the "St. George" University Hospital after sustaining a trauma via fall from significant height with clinical manifestations with pain in the lumbar spine area. A lumbar spondylography and a following CT scan revealed a complex compression fracture of L1 with degenerative osteoporotic changes of lumbar vertebrae and several pathologies of the lumbosacral junction. After clinical discussion, an operative treatment was performed in the form of posterior transpedicular stabilization with titanium rods and screws. Postoperatively a relief from the lumbar region pain was reported. No neurological deficit was observed. The patient was mobilized, rehabilitated and discharged from the hospital.

CONCLUSION

Compression fractures of vertebrae in the thoracolumbar junction of the spine represent a common type of spine injury, albeit an often misdiagnosed one. The use of imaging methods for the purpose of diagnosis, CT scanning chief among them, is recommended. Treatment via posterior transpedicular stabilization proves to be a reliable and effective way of managing this condition.

KEY WORDS: vertebral compression fracture, thoracolumbar junction, CT imaging, case report

A NEW VIEWPOINT TO THE PROBLEM CALLED "STRESS“

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INTRODUCTION

The topic of stress is extremely comprehensive and relevant, since the daily life of a modern person is full of various stress factors. Stress takes a toll on human health on a daily basis. Many of the diseases in modern society are due to excessive levels of stress. There are few studies aimed at establishing the optimal level of stress and its impact on personality. In fact, how many of us ask ourselves the question "Is it possible that daily constant stress is helping me?“. Following the well-known maxim "Any medicine can be a poison, it all depends on the dose“, it is important to establish the optimal level of stress having a beneficial effect on the personality and, accordingly, the level of accumulated stress that can lead to adverse health consequences.

AIMS/OBJECTIVES

This report presents a study of the level of optimal and cumulative stress and its impact on personal development and health. Students from Varna Medical University and VVMU "Nikola Y. Vaptsarov '‘ are taking part. The purpose of the study is to determine the level of the perceived stress, as well as the degree of optimal stress supporting the individual in achieving his goals.

MATERIALS AND METHODS

To achieve the goal, the following tasks were set: 1) Conducting a survey with a questionnaire to determine the level of accumulated stress (Karastoyanov 2000). 2) A survey study of the subjective assessment of stressors and their impact on personal effectiveness. The following data collection methods are used: self-assessment questionnaire and survey.

The study covers two groups of trainees: the first group - cadets studying in the specialty "Medical Insurance of the Armed Forces“ and the second group - students studying at the University of Varna.

RESULTS

The obtained results will determine the way in which the two groups of studied persons perceive the impact of stress, determining the optimal load and the degree of stress accumulation leading to possible health problems.

CONCLUSION

In conclusion, I can say that by extracting the positive sides from any stressful situation, we would be more confident, calmer and could find a faster and rational solution to any problem.

KEY WORDS: stress, health, cadets, students

CAN SCHIZOPHRENIA GET FREQUENTLY MISDIAGNOSED?: A REVIEW CASE STUDY

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INTRODUCTION

Schizophrenia is a chronic brain disorder which presents with delusions, hallucinations, disorganised speech & thinking and lack of motivation. It can be frequently misdiagnosed as borderline personality disorder or substance induced psychosis due to the close overlap in symptoms. This study examines a number of cases of schizophrenia misdiagnosis.

THE CASE PRESENTATION

Schizophrenia is a mental disorder characterised by disruptions in thought processes, perception, emotional responsiveness and social interactions. Borderline Personality Disorder severely impacts a person's ability to control their emotions and Substance Induced Psychosis is a type of psychotic disorder marked by hallucinations and delusions attributed to drug abuse.

A 35-year old woman was diagnosed with Borderline Personality Disorder (BPD) in October 2021. As a teen, suffered from social anxiety disorder & depression is noted. The examination revealed fear of abandonment, impulsiveness, feeling of emptiness and constant mood swings. The patient was later discovered to be suffering from schizophrenia, paranoid variant.

Her boyfriend, 34 was also identified to have schizophrenia a year ago in April 2022 with a coexisting condition of ADHD recognised as a teenager. He was misdiagnosed earlier due to heavy alcohol and substance abuse.

CONCLUSION

There are common features in the symptomatic presentation of these conditions. It is because of this resemblance in their characteristics that physicians often find it difficult in identifying the right illness.

In our work we emphasise the importance of proper examination and history taking in patients presenting with readmission and overlapping symptoms.

KEY WORDS: borderline personality disorder, schizophrenia, substance induced psychosis

A CASE REPORT OF RARELY COMPLICATION FOLLOWING A CEREBRAL ANEURYSM

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INTRODUCTION

Hydrocephalus is a pathological accumulation of fluid in the brain ventricles. Obstructive hydrocephalus is a common complication of aneurysmal subarachnoid hemorrhage (SAH) and often results in poor neurological outcomes. It is our aim to present the case of a patient with obstructive hydrocephalus resulting from SAH and assess the treatment and post-surgical outcome.

THE CASE PRESENTATION

We present the case of a 54-year old male patient who has presented to the Neurosurgery Clinic of the UMHAT "St. George" in Plovdiv, Bulgaria, in an unresponsive state with a fever. He had a clinical history of basilar artery aneurysm, treated via endovascular embolization. CT imaging revealed evidence of hydrocephaly as a complication of SAH in the right parietal region, alongside a hemorrhage in the lateral ventricles. A following radiography suggested an infiltrative appearance in the left basilar area. After a clinical discussion, a craniotomy of the right occipital region with a ventriculoperitoneal shunt insertion was performed. An i.v. medication course was prescribed. Post-operatively, a regression of the hydrocephalus was observed, alongside lowered intracranial pressure with no neurologic deficit. The patient was mobilized and later discharged from the hospital.

CONCLUSION

SAH is an often fatal condition with numerous complication. Obstructive hydrocephalus is a common one, which, whether acute or chronic, can lead to severe cognitive deficits. CT scanning is the primary and most reliable method of diagnosing obstructive hydrocephalus, and its treatment via craniotomy and ventriculoperitoneal shunt insertion proves to be an effective treatment with satisfactory post-operative outcomes.

KEYWORDS: case report, cerebral aneurysm, hydrocephalus

OPERATIVE TREATMENT IN CHILDREN WITH EPIDURAL HEMATOMA

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INTRODUCTION

Epidural hematoma (EDH) is a hemorrhage into the space between the dura and the overlying calvarium. The most common cause of occurrence is a trauma of the head.

AIM

The aim of study is to show how the children that were hospitalised in Neurosurgery ward of University hospital for active treatment Burgas for a period of one year are treated operatively and how the epidural hematoms are operated.

METHODS

The documentary, graphical, statistical, clinical and radiological analysis methods were used.

RESULTS

In the investigation an information about 134 children admitted in Neurosurgery ward in University hospital for active treatment Burgas for a one-year period was investigated. 20 patients were operated. 3 patients were with fracture of the scull with epidural hematoma and they are emergency operated. Treatment outcomes, and possible correlations of cognitive testing with clinical outcome were analysed.

CONCLUSION

In case of epidural hematoma, emergency surgical treatment is carried out and is the method of choice to save the patient‘s life. Timely diagnosis and operative treatment of epidural hematoma with neurological deficit requires thorough clinical thinking, a multidisciplinary approach and a number of investigations to confirm the diagnosis.

KEY WORDS: epidural hematoma, operation, children

ACUTE PRESENTATION OF GIANT VESTIBULAR SCHWANNOMA

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INTRODUCTION

Vestibular Schwannomas (VSs) are benign slow growing tumours that arise from the vestibular portion of 8th cranial nerve. They are the most common cerebello-pontine angle tumours (80%) in adults. Large VSs can be life threatening and tend to interfere with a patient's quality of life. The clinical presentation depends on the size of tumour, mass effect on the brainstem and obstruction of the CSF pathway. Surgical resection can be challenging (especially in giant VSs) due to the proximity of brainstem and cranial nerves. However, in majority of the cases VSs are discovered incidentally and their growth remains slow.

THE CASE PRESENTATION

A previously healthy 31 years old lady presented with left sided giant cystic vestibular schwannoma (Gr 4) causing severe brainstem compression. Radical subtotal tumour resection was performed to preserve surrounding nervous tissue. A follow-up MRI revealed the expected collapse of the tumor.

CONCLUSION

Main aim of the surgery was maximal and careful removal of the tumour; while preserving brainstem and cranial nerves' functions (V, VII, VIII, IX, X) with the use of intraoperative neural monitoring. The patient will be treated with radiosurgery (cyber knife); if on the follow up MRI growth of the residual tumour is detected or if the patient suffers from neurological symptoms due to the mass effect of residual tumour. Prompt diagnosis and resection of the giant VSs prevents severe neurological outcomes in patients.

KEY WORDS: CPA tumours, sporadic vestibular schwannoma, neurosurgery

OBSTETRICS AND GYNECOLOGY & PEDIATRICS SECTION

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Every generation rediscovers and re-evaluates the meaning of infancy and childhood.

Arnold Gesell

THE CHALLENGE "DIAPHRAGMATIC HERNIA" – PRESENTING THREE CLINICAL CASES

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INTRODUCTION

Congenital diaphragmatic hernia (CDH) is a rare developmental defect of the diaphragm in which abdominal organs move into the fetus's chest. Clinical manifestations can be detected in different age groups. Early diagnosis can prevent late complications including diaphragmatic rupture, acute obstructive symptoms, respiratory failure, incarceration, strangulation, and cardiac tamponade.

The aim of our report is to analyse three clinical cases of CDH diagnosed in different ages.

CASE PRESENTATION

The first case: a two month old boy, who is hospitalised with symptoms of cough and dyspnea. The diagnostic imaging proves the presence of mass suspected for DH. The child is then referred for surgical treatment.

The second case: a twelve year old boy with late diagnosed CDH, who arrived in the clinic due to recurrent respiratory infections, heavy cough, dyspnea, and fever. The diagnosis is confirmed with a CT scan. Surgical treatment was recommended, but it was not performed.

The third case: a one year old girl arriving in the emergency department because of head trauma. Worsening of the child's condition leading to respiratory failure was the reason for a CT scan, which showed an unsuspected CDH.

CONCLUSION

Early diagnosis and correction of diaphragmatic hernia can prevent life-threatening complications and adverse outcomes.

KEY WORDS: congenital diaphragmatic hernia, child

EFFECTS OF COMBINATION OF EBRT AND CHEMOTHERAPY ON OVERALL SURVIVAL OF CANCER OF UTERINE CERVIX IN BULGARIA

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AIMS/OBJECTIVES
Cancer of the uterine cervix (CUC) is the fourth most common cancer in the world. The majority of new cases and deaths (about 85% and 90%, respectively) occur in low- and middle-income countries (LMICs. According to NCCN recommendations, the effect of chemotherapy and external beam radiation therapy (EBRT) on nodal positive cancer of the uterine cervix (CUC) patients‘ 5-year overall survival was examined in Bulgaria.
MATERIALS AND METHODS
5432 cases that were subsequently registered with CUC in the Bulgarian National Cancer Registry (BNCR) between 2015 and 2020 were the subject of a retrospective population-wide observational analysis. The average age at diagnosis was computed based on the stage at diagnosis. The effects of EBRT, chemotherapy, and the combination of the two for patients registered with nodal positive CUC were examined over a 5-year period. ANOVA testing and the Kaplan-Meier curve with log rank were used for statistical significance.
RESULTS
Stage 1, 2, 3, and 4 CUC‘s respective mean ages at diagnosis in years were 52.70, 57.18, 57.57, and 58.85, with a p-value of <0.001.
Even though fewer than 35% of patients got combination therapy, those who received chemotherapy and EBRT had improved 5-year OS rates for nodal positive patients. Patients who got both therapies, chemotherapy only, radiation only, and no therapy, respectively, had 5-year OS rates of 48.7%, 30.8%, 41.8%, 22.2%, and no therapy, with a p-value of <0.001.
CONCLUSION
For patients with nodal CUC, Bulgaria should offer both chemotherapy and radiation. Additionally, a screening program and HPV vaccinations must be put in place.

KEY WORDS: cancer of uterine cervix, Bulgaria, EBRT, chemotherapy

EFFECT OF CHEMOTHERAPY ON THE OVERALL SURVIVAL FOR INVASIVE LOBULAR AND INVASIVE DUCTAL CARCINOMA IN BULGARIA

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INTRODUCTION
Two histological subtypes of breast cancer are invasive lobular carcinoma (ILC) and invasive ductal carcinoma (IDC).
AIMS/OBJECTIVES
The aim of our study was to compare the 5-year overall survival (OS), of IDC and ILC. The effect of chemotherapy for IDC and ILC were also analysed.
METHODS
This is a retrospective population wide observational study of patients diagnosed with breast cancer in the Bulgarian National Cancer Registry (BNCR) in 2013. 4056 patients were registered. 122 were registered after death and 33 had bilateral cancer. Therefore, our sample size was 3901 patients. 458 (11.7%) diagnosed with ILC and 2763 (70.8%) with IDC. 1675 (42.9%) patients in total had chemotherapy, this sample was used to analyse the effects of chemotherapy on the OS. The Kaplan-Meier, Log rank test and Anova test were used to estimate the statistical significance.
RESULTS
The OS higher in IDC (68.5%) compared to ILC (63.1%). Most patients were diagnosed in stage 2 in both IDC and ILC, 43.7% and 44% respectively. Patients in both ILC and IDC were diagnosed with biological subtype ER+/PR+ and HER2-, 71.2% and 65.8% respectively. The mean and median age for ILC were 62.37 and 64 respectively and 60.32 and 61 respectively for IDC. IDC patients treated without chemotherapy had a higher OS (74.8%) than patients treated with chemotherapy (66.8%).
CONCLUSION
ILC has a lower OS than IDC. Chemotherapy has a negative effect on the OS for ILC. The mean and median ages were similar for both.

KEY WORDS: breast cancer, invasive ductal carcinoma, lobular carcinoma

THE ROLE OF PRE-GESTATIONAL MANAGEMENT AND USE OF LMH AND ASPIRIN IN PATIENTS WITH RECURRENT PREGNANCY LOSS AND INHERITED THROMBOPHILIA

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AIMS
Recurrent pregnancy loss (RPL) is multiple pregnancy losses. Inherited thrombophilia, which increases blood clot risk, contributes to RPL. Pre-gestational therapy with Low-Molecular-Weight Heparin (LMH) and Aspirin may improve pregnancy outcomes in these patients. AIMS: This study aims to evaluate the effectiveness of pre-gestational management and the combination of LMH and Aspirin in patients with RPL and inherited thrombophilia.
MATERIALS AND METHODS
A hereditary thrombophilia test was performed on each of the 459 pregnant research participants, whose gestational ages ranged from 6 to 38 gestational, for the period from January 2020 - May 2023 were collected. Based on the treatment method, patients in a dataset with RPL and hereditary thrombophilia were split into three groups.
RESULTS
Group I (Control) patients did not get any pre-gestational care or anticoagulant treatment. Group II: Patients who only received aspirin treatment with 100 mg. Group III: Patients receiving LMH and aspirin therapy. Compared to the treated groups (Group II and Group III), the pregnancy success rate was noticeably lower among the patients in Group I (Control). In addition, Group I experienced more thrombotic events than the groups that received treatment.
CONCLUSION
Pre-gestational therapy with aspirin alone or in combination improves pregnancy outcomes and reduces thrombotic events in RPL and hereditary thrombophilia patients. LMH combined with aspirin may increase pregnancy success more than aspirin alone. These findings need further investigation and larger trials to maximize treatment for this patient population.

KEY WORDS: pre-gestational management, recurrent pregnancy loss (RPL), low-molecular-weight heparin (LMH), inherited thrombophilia, aspirin.

A RARE CASE OF PERITONEAL WALL-ORIGINATING IMMATURE TERATOMA

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INTRODUCTION

This report presents a remarkable case of a 19-year-old female diagnosed with a unique pelvic teratoma originating from the peritoneum. Initial evaluation was prompted by the discovery of a palpable suprapubic mass. An ultrasound scan revealed a considerable pelvic mass suspected to arise from the ovary, accompanied by a right ovarian cyst and concurrent ascitic fluid accumulation. Elevated levels of CA 25, X-ray and MRI culminated in the diagnosis of a tumour.

CASE PRESENTATION

Surgical intervention, conducted through laparatomy, encompassed mass excision, bilateral ovarian and omental biopsy. The procedure unveiled a 20cm solid cystic tumor adhered to the right sacrouterine connection and anterior rectal wall—originating from the peritoneum, a rarity in teratomas. A small metastatic omental lesion was also identified. Both ovaries and fallopian tubes displayed normal morphology. Histological analysis of biopsy specimens highlighted features consistent with immature teratoma stage 3B, including neuroectodermal rosettes. The cytological analysis of the ascitic fluid showed single erythrocytes and lymphocytes, mostly leukocytes. There were very few proliferative and dystrophic mesothelial cells. The patient's post-operative recovery was uneventful.

CONCLUSION

This case presents a compelling and unusual scenario due to the teratoma's rare origin from the peritoneum in a young patient. The distinct nature of this case serves as a reminder of tumors' diverse manifestations, even challenging conventional expectations. It underscores the significance of comprehensive diagnostics and personalized treatment strategies. As medical knowledge evolves, cases like these enrich our understanding of tumor behavior and drive exploration into neoplastic intricacies.

KEY WORDS: pelvic teratoma, peritoneal origin, immature teratoma, neuroectodermal rosettes, surgical management

A RARE CASE OF CEREBRAL SINOVENOUS THROMBOSIS PRECIPITATED WITH PROTEIN S DEFICIENCY

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INTRODUCTION

Cerebral sinus venous thrombosis (CSVT) is a rare form of stroke associated with an increased mortality. CSVT can present with multiple varied clinical presentations making it difficult to distinguish from other neurological conditions.

THE CASE PRESENTATION

A 12-year-old girl second born to 3rd degree consanguineous married parents presented with holocranial headache since 3 days, vomiting at nadir of headache since 1 day and an episode of Generalized Tonic Clonic seizure lasting for 5-10 minutes. On examination the child had pallor and hyperpigmented skin. Deep Tendon Reflexes were increased.(Knee Jerk, Ankle Jerk). Blood Haemoglobin, Protein S Functional were low. Total WBC count, ESR, Platelet Count were increased. Peripheral Smear was indicative of Microcytic Hypochromic anaemia. MRI Brain revealed flair hyper-intensity in bilateral frontal lobe and left posterior parietal lobe with blooming on SWI suggestive of microhemorrhages. MR Venogram revealed loss of flow voids in the midpart of saggital sinus with few medullary and cortical vein collateral suggestive of subacute thrombosis. A probable diagnosis of CSVT with secondary to anaemia / dehydration/congenital protein S deficiency was considered and the child was initiated on Low Molecular Weight Heparin, anti-seizure medication (levetiracetam) and supportive medication.

CONCLUSION

Common cause of CSVT is secondary to chronic medical condition such as malignancy, infections, nephritic syndrome or inflammatory condition. Very rarely protein S deficiency can present as a cause of CSVT hence high index of suspicions should be there in all young patients with family history of thrombotic events and with no apparent cause.

KEY WORDS: cerebral venous thrombosis, protein S deficiency, iron deficiency anemia

SURGERY, UROLOGY & ORTHOPEDICS SECTION

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I am among those who think that science has great beauty.

Marie Curie

LAPAROSCOPIC COMMON BILE DUCT EXPLORATION FOR LARGE CHOLEDOCHAL STONES. CASE SERIES

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INTRODUCTION

Cholelithiasis (gallstones) is a common occurring condition which is the result of concrements forming in the gallbladder from its digestive fluids. The aim of the following case series is to present 2 cases of large CBD stones, managed by LCBDE and discuss the advantages and shortcomings of the method.

CASE PRESENTATION

Case 1: 75 y/o female presenting with abdominal pain, jaundice, decreased appetite, slight pain in the right lower leg and trouble defecating. CT and ultrasound - discovered large concrement (19mm) in the extrahepatic bile ducts and their proximal dilation (22mm). Patient underwent LCBDE, cholecystectomy, extraction of the concremet. Kerr drain was placed and removed 28 days after the procedure. No complications reported during the postoperative period. The patient reports no complaints during a control examination conducted 3 months later.

Case 2: 69 y/o male presenting with pain in the upper right quarter of the abdomen, slight jaundice. Imaging diagnostics - dilated CBD with no large roentgen positive stones and suspected several small cholesterol stones. Patient underwent fluorescent cholangiogram, trans CBD exploration with choledochoscopy and removal of 3 small and 1 large stone. CBD closed and Kerr drain was placed. No complications were reported during the postoperative period.

CONCLUSION

Most common treatment option for CBD stones is ERCP. Several large randomized trials show similar rates of stone clearance between ERCP and LCBDE.

Both ERCP and LCBDE are highly effective methods. Although LCBDE is technically challenging and requires experienced laparoscopic surgeons with advanced suturing skills, it shows less complications, reduced cost of treatment and shorter hospitalization.

KEY WORDS: ERCP, LCBDE, CBD stones, choledocholithiasis, laparoscopic surgery

FAT EMBOLISM - A CASE REVIEW

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INTRODUCTION

Fat embolism is a rare but a potentially life threatening condition that can occur after a long bone fracture. It occurs when fat is released from the bone marrow into the circulation. If occlusions develop, it can lead to Fat embolism syndrome.

CASE PRESENTATION

A healthy 25-year-old male, medical student was involved in a road traffic accident in Nigeria. He was transported 900 km to the Orthopaedic Hospital Wamakko in Sokoto. The patient was conscious but was looking pale (anaemic) and his vital signs were normal. Initial investigations included a Full Blood Count which showed the patient had anaemia. On physical examination they found the patient was suffering from a closed fracture of the right femur. He was admitted and was scheduled for surgery the next day. Hours later he developed symptoms that included shortness of breath and neurological investigation showed confusion. The patient was then put on mechanical ventilation. Petechial rash appeared a day later. Since the hospital the patient was admitted to had no ICU unit, it was then decided to move the patient to a nearby hospital with an ICU. Unfortunately the patient passed away en-route.

CONCLUSION

Fat embolism generally occurs within 24-72 hours after a traumatic event or it could occur within a few hours. Hence the importance of early diagnosis and stabilisation of long bone fractures to prevent further progression. The incidence of fat embolism is low as 5-10% in patients with multiple fractures. This was the first case in the Orthopaedic Hospital Wamakko.

KEY WORDS: fat embolism, fracture

FEMORAL NECK FRACTURES IN YOUNG ADULTS. THE UNSOLVED FRACTURE

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INTRODUCTION

Femoral neck fractures management has been a challenge for ages, and still remains such. Orthopaedic surgeons perform many different procedures, however they all have their own superiorities or disadvantages.

AIMS/OBJECTIVES

We focused our research on the biomechanics, standard operative procedures for open reduction and internal fixation and clinical outcomes. Our objectives are to apply clinical results for dividing the implants by their advantages and deficiencies. As well we compared our results with others in contemporary literature.

METHODS

A two and a half years retrospective study was performed. We examined 431 proximal femoral fractures, but only 18 applied for our criteria of isolated intracapsular fracture, patients' age of 65 or less, without medical conditions influencing their life quality. Three types of standard operative techniques were observed with Cannulated screws, Dynamic Hip Screw (DHS) plus a partially threaded lag (anti rational) screw, DHS plus a transverse (Pauwels) screw resisting shear forces.

RESULTS

Mechanism, energy of the trauma and concomitant injuries acknowledgement is crucial to determine the choice of procedure and implants. Our experience showed good or excellent results in most patients, however fair or satisfactory results were still present. According to VAS and Harris Hip Score our results are as good as the modern literature reports.

CONCLUSION

Femoral neck fracture management in young adults is still problematic. Treatment of choice must be a joint preserving procedure, due to the high long-term rates of complications after THR in younger age. Different techniques show comparable results, so we advise to stick it up to the surgeon's preference and experience.

KEY WORDS: femoral neck fractures, young adults, Pauwels

THE IMPACT OF TOPICAL OZOILE - OLIVE OIL STABLE OZONIDES ® ADMINISTRATION AS A CUTTING-EDGE TECHNIQUE IN THE TREATMENT OF CHRONIC WOUNDS AND SOFT TISSUE INFECTIONS

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AIMS/OBJECTIVES
This research is to evaluate if topical ozone therapy is a better alternative treatment method than the conventional method of surgical wound treatment.
METHODS
A retrospective study for the period March 2022 - June 2023 of patients with chronic wounds and superficial and deep soft tissue infections at the Department of Surgical Diseases at Medical University - Pleven, Bulgaria. All 435 patients are treated surgically with wound debridement, necrosectomy and fasciotomy. We compared 90 (20,7%) patients treated with ozone topically to patients with conventional antiseptic methods - 345 (79,3%).
RESULTS
435 patients: 279 males (64,2%),156 females (35,8%). On 90 patients treated with OZOILE® topically we noticed the comorbidities as follows: obesity - 26 patients (28,8%), arterial hypertension - 51(56,6%), chronic arterial insufficiency of the extremities - 20 (22,2%), diabetes mellitus- 30 (33,3%), dyslipidemia - 12 (13,3%), systemic treatment with steroids - 8(8,8%), gout - 5(5.5%). We registered a reduction in wound size on the 5th day of treatment by 25% from the initial scores (p0,04) and a decrease in C-reactive protein levels by 50% on the fifth day of treatment (p0,05) in the group treated with OZOILE®. After discharge patients treated with topical ozone therapy had no complaints of local itching, redness and secretion (p0.05), compared with conventional wound treatment.
CONCLUSION
The treatment of surgical soft tissue infections with OZOILE® had better results when compared to conventional antiseptic treatment and is an alternative and novel method in contemporary strategy in complex wound surgical treatment.

KEY WORDS: soft tissue infection, topical ozone therapy

AXILLARY REVERSE MAPPING FOR BREAST CANCER: AN INDEX CASE REPORT

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INTRODUCTION

This case report aims to investigate and report the case of a 67 year old female patient with Grade 2 Lobular Carcinoma In Situ, who underwent Modified Radical Mastectomy and Axillary Reverse Mapping. This case is an index report, on a new method of identifying and preserving lymph nodes to prevent secondary lymphedema.

CASE PRESENTATION

A 67-year-old female patient with a histologically verified carcinoma of the left breast underwent MRM with SLNB and ARM. During surgery, ARM was utilized to identify and preserve lymphatic drainage pathways in the axilla. The procedure involved injecting ICG and Patent Blue dyes to map and spare lymphatic structures. A systematic approach was taken to minimise disruption to lymphatic vessels during the surgical process.The incorporation of ARM in the MRM and SLNB procedure demonstrated potential benefits in reducing postoperative complications. Preservation of lymphatic drainage pathways through ARM was associated with a decreased risk of chronic lymphedema, axillary web syndrome, chronic pain, swelling, restricted arm movement, and potential infection. The patient's immediate postoperative course showed improved wound healing, reduced swelling, and early recovery of arm movement.

Immunohistochemical Analysis Estrogen receptor (ER) was 3+5=8, progesterone receptor (PR) was 1+1=2, HER2 was (1+), and Ki67 was 9%.

CONCLUSION

This case report highlights the potential advantages of integrating Axillary Reverse Mapping into Modified Radical Mastectomy and Sentinel Lymph Node Biopsy procedures. By preserving lymphatic drainage pathways, ARM may mitigate various postoperative complications, enhancing patient outcomes and quality of life.

KEYWORDS: axillary reverse mapping, ARM, modified radical mastectomy, MRM, sentinel lymph node biopsy

SUBLAY HERNIOPLASTY FOR VENTRAL HERNIA: AN INDEX CASE REPORT

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AIMS
To describe the operative procedure of Sublay Hernioplasty in a 51 year old patient with Ventral hernia.
METHODS
A 51 year old patient presented to the Department of Oncosurgery with long-standing symptoms of ventral hernia. Following diagnosis and imaging, the decision to perform a sublay Hernioplasty was made, using a polymer mesh.
The case is presented to show the advantages of this method for mesh placement over other techniques
Discussion about onlay, lnlay and sublay
RESULT
This technique offers advantages such as decreased pain and improved long-term outcomes compared to other methods like "onlay" or "underlay" hernia repairs. The patient was assessed at 30 days using the Clavien Dindo scale. The patient scored 1 on the Clavien Dindo scale. The surgical site showed no signs of infection, or inflammation, and the patient reported an improvement in symptoms.
CONCLUSION
By placing the mesh beneath the rectus abdominis, it addresses potential complications associated with mesh placement while minimising the risk of recurrence, or failure of the mesh. This method of hernia repair can be utilised in highly selective patients with Ventral Hernias. Future efforts should be directed towards larger studies involving more patients.

KEY WORDS: inguinal hernia, sublay hernia, hernioplasty

MICROBIAL PROFILE OF INFECTIONS AND ANTIMICROBIAL RESISTANCE OF MOST COMMONLY ISOLATED PATHOGENS IN ICU PATIENTS 2018-2022

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AIMS/OBJECTIVES
To analyse the microbial profile of infections in ICU patients. To observe the dynamics in antimicrobial resistance of most commonly isolated pathogens in the 2018-2022 period.
MATERIALS AND METHODS
166 microbial strains were isolated from 70 patients treated in ICU III (UMHAT Georgi Stranski) in the 2018-2022 period. Cultivation of the clinical specimens was performed on blood agar, Levine agar, chocolate agar and enriched liquid medium. Identification and antimicrobial resistance of the strains was achieved via conventional methods and automated systems.
RESULTS
In our study 29 patients are male and 41 – female. The average age is 64,34 years (35 - 94). Most of the patients were diagnosed with benignant or malignant neoplastic diseases. 63 samples (38,2%) were taken from the respiratory system, followed by wound discharge – 59 (35,8%), blood cultures – 35 (21,2%). From the examined materials, 166 strains were isolated – 97 (58,43%) Gram-negative bacteria, 52 (31,32%) Gram-positive bacteria and 17 (10,24%) yeasts. The antimicrobial resistance of the Enterobacteriaceae family bacteria is highest towards Carbapenem and lowest towards 1st and 2nd generation Cefalosporines. The Gram-positive bacteria showcase highest sensitivity towards Vancomycin, Teicoplanin and Linezolid.
CONCLUSION
Our team established that in the environment of ICU III there is a prevalence of Gram-negative bacteria. However, there is a trend of increasing the relative share of Gram-positive pathogens for the observed period.

KEY WORDS: ICU, infections, microbial profile, resistance

EMERGENCY MANAGEMENT OF SOFT TISSUE INJURY IN FOREARM COMPARTMENT SYNDROME – A CASE STUDY

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INTRODUCTION

Compartment syndrome represents a critical medical urgency, distinguished by elevated pressure within an enclosed anatomical region that leads to disturbance in normal blood circulation and tissue perfusion and nerve conduction impairment. If not treated it can be life-threatening.

CASE PRESENTATION

A 46-year-old male with high energy trauma presented in hospital 2 hours after injury. Evaluation in the orthopedic department demonstrates excessive swelling in the left cubital area, parenthesis of the median nerve innervated areas of the palm and absence of radial and ulnar pulse. X-ray shows Monteggia fracture-dislocation of upper extremities classified as Bado 4. He was brought to the operating room immediately after clinical examination. Surgical decompression was performed with distal brachial and forearm fasciotomy, perfusion was restored. The wound was left open until the swelling was reduced. Three adaptive sutures using wires were placed allowing easier wound closure afterwards. Two nelaton catheters were sutured on either side of the wound edges to allow atraumatic gradual approximation. External fixation was applied to temporarily reduce the fracture. Daily wound dressings were done using saline to provide enough moisture to the tissues as it is vital. Wound was closed in 15 days with this technique as the sutures were tightened every two-three days.

CONCLUSION

Emergency decompression is crucial for preserving a vital and functional limb. Wound closure is challenging and has to be done with patience and precision. We should consider that we are not only closing the wound but managing a potential infection.

KEY WORDS: decompression, compartment syndrome

THE ROLE OF INDOCYANINE GREEN AS A TRACING MARKER FOR SENTINEL LYMPH NODE BIOPSY IN CN0 BREAST CANCER PATIENTS

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INTRODUCTION

The gold standard in managing early-stage breast cancer is axillary staging based on sentinel lymph node biopsy (SLNB), which can prevent total axillary dissection in more than 70% of cases. It reduces the postoperative complications and enables accurate lymph node identification. The standard markers for staining are radioisotope and blue dye, either independently or together. Recent studies have shown the use of indocyanine green (ICG) as a fluorescent tracer with similar or even better detection rate than the traditional methods. The advantages of ICG include low autofluorescence, high signal-to-background ratio, and low scattering in tissue absorbance.

AIMS/OBJECTIVES

This study's main objective is to assess the feasibility and sensitivity of ICG for SLNB in patients with clinically node-negative breast cancer.

MATERIALS AND METHODS

From 01.01.2021 to 01.07.2023 in a single center all cN0 staged breast cancer patients underwent SLNB using ICG. 5 ml of 25 mg/ml ICG was injected in the periareolar site at the beginning of every procedure. The sentinel nodes were identified with an infrared camera after 10 min following injection. Afterwards, the removed sentinel lymph nodes were sent for histological staging. Both the identification rate and the feasibility of the technique were evaluated.

RESULTS

26 patients participated in the study over the course of the time period. The sentinel lymph nodes were found and excised in 24 of the patients. The average number of lymph nodes that were removed was 3.

CONCLUSION

According to the obtained results, the use of ICG as a tracer for SLNB for patients with cN0 breast cancer could be considered a safe and successful approach.

KEY WORDS: indocyanine green, sentinel lymph node biopsy, breast cancer, fluorescence

HETEROLATERAL DYSTOPIA OF THE KIDNEY WITH FUSION

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INTRODUCTION

Heterolateral dystopia of the kidney with fusion is a rare congenital anomaly in which both kidneys are situated unilaterally in relation to the median plane and are fused at their superior or inferior poles. The abnormal anatomy present in this anomaly is a cause for frequent urolithiasis. Several challenges exist in the treatment of the urolithiasis in this specific anomaly because of a lack of standardised therapeutic algorithm.

THE CASE PRESENTATION

A 74-year-old patient complains of periodic pain in the left lumbar region and macroscopic hematuria. Diagnostic imaging detects heterolateral dystopia of the right kidney with fusion at the left and a concrement in the middle third of the ureter that drains the caudal ectopic kidney system. Despite the abnormal location of the middle third of the ureter, there was performed a semi rigid ureteroscopy with Holmium laser lithotripsy of the concrement.

CONCLUSION

In clinical practice, heterolateral dystopia with fusion is most often discovered incidentally or following complications. Endourologic methods are the choice treatment for patients with congenital urinary tract anomalies and urolithiasis. Contrast-enhanced radiography is the main tool used for choosing the correct treatment method.

KEY WORDS: heterolateral, dystopia, kidney, anomaly, fusion, urolithiasis

EVOLVING DEFINITIONS AND PREVALENCE OF SEPSIS: INSIGHTS FROM A 5-YEAR STUDY IN THE DEPARTMENT OF COLOPROCTOLOGY AND PURULENT-SEPTIC SURGERY

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INTRODUCTION

For over two decades, sepsis was primarily characterised as a microbial infection that manifested as fever or hypothermia, tachypnea, tachy-bradycardia and changes in leukocyte levels. However, the definition of sepsis has undergone significant revisions. A pivotal moment came with the consensus statement that shifted the medical community‘s focus from the SIRS (Systemic Inflammatory Response Syndrome) criteria to the Sequential Sepsis-related Organ Failure Assessment (SOFA) score. It introduced "sepsis“ as life-threatening organ dysfunction resulting from a dysregulated host response to infection. This new definition emphasised the critical role of organ dysfunction in identifying and treating sepsis effectively.

AIMS/OBJECTIVES

To assess the prevalence of sepsis among patients in the Department of Coloproctology and Purulent Septic Surgery, UMHAT “Dr. Georgi Stranski”, Pleven.

MATERIALS AND METHODS

This retrospective 5-year study used criteria based on "Sepsis-3“ Consensus to identify and include eligible patients.

RESULTS

We observed a total of 8 patients (6m/2f). The median hospital stay for them was 16.9 days, (range:1-36 d). We identified mortality in 3 patients. Among these cases, 2 patients were admitted with a clinical presentation of acute abdomen, while the remaining 6 developed acute purulent infections. Positive blood cultures were obtained in 3 patients.

CONCLUSION

Our study found a relatively low incidence of sepsis within the Department of Coloproctology and Purulent Septic Surgery. Improvements in sepsis outcomes will continue to be slow and incremental. With declining mortality rates, sepsis remains a concern in the modern surgical and antibiotic era.

KEY WORDS: sepsis, SIRS, mortality

SHORT TERM RESULTS OF OPERATIVE MANAGED AO TYPE C DISTAL RADIUS FRACTURES IN PATIENTS YOUNGER THAN 60 Y.O.

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INTRODUCTION

AO type C distal radius fractures (DRF) remain one of the common and challenging fractures in all age groups. In younger patients the functional demands are greater and finding the best way to restore the function is obligatory.

AIMS/OBJECTIVES

The primary focus of our study was to evaluate radiographic findings of acceptable reduction when managing intra articular DRF and to point out the significance of the radiographic assessment in restoring wrist function using different reconstruction methods.

METHODS

A two and a half years retrospective study was performed. Twenty-seven active and healthy patients, under 60 years of age, with operatively managed DRF were included in the study. All of them were classified as AO type C fractures. Radiographic assessment included volar tilt, radial inclination and ulnar variance, and outcome evaluation included the Mayo modified wrist score and DASH score.

RESULTS

Volar tilt (mean 6.1 degrees), radial inclination (mean 17.5 degrees) and ulnar variance (mean +2 mm), as well as Mayo modified wrist score (mean 80 points) and DASH score (mean 13.3 points) for all the patients included in the study. There was no significant difference between the types of reconstruction.

CONCLUSION

The parameters with the most significant correlation with the clinical outcomes were volar tilt and radial shortening (corresponding with ulnar variance). Exceeding the tolerable range of those parameters had shown significantly worsened clinical outcomes. When choosing a type of reconstruction we focused on the fracture pattern and the severity of the metaphyseal comminution.

KEY WORDS: distal radius fractures

A CASE SERIES REPORT ON THE OUTCOMES OF LAPAROSCOPIC CHOLECYSTECTOMY VS ROBOTIC CHOLECYSTECTOMY

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AIMS
To compare the outcomes of laparoscopic cholecystectomy and robotic cholecystectomy in a case series of patients undergoing cholecystectomy for gall bladder disease.
METHODS
A total of six patients were included, with three undergoing laparoscopic cholecystectomy and three undergoing robotic cholecystectomy. Patient parameters analyzed included post-operative erythrocyte sedimentation rate (ESR), hemoglobin (Hb) count, length of hospital stay, and operation duration. The patients underwent a 30 day follow-up, and their complications were measured using the Clavien Dindo Scale.
RESULTS
Robotic Cholecystectomy was associated with a longer operative time (150 minutes vs 115 minutes) and an extended length of hospital stay (2.6 Days), compared to laparoscopic approaches (2.3 days). All patients had no significant complications and scored 1 on the Clavien Dindo Scale on 30-day follow-up.
CONCLUSIONS
While Robotic Cholecystectomy tends to result in prolonged operation and hospital stay, Laparoscopic approaches pose risks related to reduced post-operative Hb counts. Further investigations with larger cohorts are necessary.

KEY WORDS: laparoscopic cholecystectomy, robotic cholecystectomy, post op ESR, Hb count, length of hospital stay

APPENDICULAR ADENOCARCINOMA WITH INFILTRATION OF THE BLADDER WALL - A CLINICAL CASE

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INTRODUCTION

Primary appendicular tumors are extremely rare malignancies with an estimated incidence of about 0.12/1,000,000 cases per year, accounting for less than 1% of all gastrointestinal malignancies, according to Goddard B et al.(1) and Yang J (2). Primary appendicular carcinoma with bladder invasion has been described in three cases in the world literature, including one with a fistula (2).

CASE PRESENTATION

We aim to present a rare clinical case of appendicular adenocarcinoma with bladder infiltration in an 84-year-old patient treated at the urology clinic at the "Dr. Georgi Stranski" UMBAL Pleven. The patient presents with complaints of the presence of blood in the urine, without symptoms from the gastrointestinal tract. The team of the clinic conducted two TuTUR, which proved enteric type carcinoma. CT, fibrocolonoscopy and PET/CT whole-body examination were performed, which revealed a metabolically active formation in an intestinal structure with invasion of the bladder wall. After the treatment in the clinic, the patient was discharged with no evidence of hematuria and no complaints from the gastrointestinal tract. The histology proved a serrated adenocarcinoma of the appendix - Low grade (G1) with bladder infiltration.

CONCLUSION

Because of its low incidence, appendicular carcinoma with bladder invasion presents a diagnostic difficulty and requires careful and precise examination and follow-up of the patient. It is recommended to perform a PET/CT scan with the aim of accurate diagnosis, perform an appendectomy with resection of the bladder wall within healthy limits and subsequent right hemicolectomy if needed.

KEY WORDS: appendicular carcinoma, hematuria, gastrointestinal neoplasms

ACUTE CHOLECYSTITIS - PROGNOSTIC FACTORS FOR LIFE-THREATENING COMPLICATIONS

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AIMS/OBJECTIVES
Perforation of the gallbladder wall poses a major life-threatening condition. The purpose of this investigation is to analyse several indicators with strong connection to gangrenous perforating cholecystitis and also, creating a score system that can measure the risk of that condition.
MATERIALS AND METHODS
A retrospective analysis of 331 patients was performed. They were operated in the span of 5 years (2016-2020). 100 patients had histologically verified acute cholecystitis, 120 – with chronic and 111 – with destructive form.
RESULTS
After thorough analysis 9 main factors proved to be reliable in the creation of a scoring system – age above 65 years, male gender, diabetes mellitus, concomitant cardiovascular pathology, tachycardia above 90 b.p.m. , thickness of the gallbladder wall more than 4mm with pericholecystic fluid present, CRP above 150 ng/l, hepatic transaminases – ASAT and ALAT above 40 IU. Based on these markers a scoring system was created with a maximum of 11 points. The positive predictive value of the scoring system is 96% in the cases with microperforation and perivesical abscess. Among the patients with the highest total score are the cases with microperforation and perivesical abscess.
CONCLUSION
We conclude that after carefully investigating the markers and the connection between them, this scoring system could be used as a reliable means for diagnosis.

KEY WORDS: predictors, gangrene and perforation of the gallbladder wall, scoring system

LIFE-THREATENING INFECTIONS- AGGRESSIVE TREATMENT OF FOURNIER GANGRENE. CASE REPORT

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INTRODUCTION

The Fournier gangrene is a rare and severe disease with high mortality. It is characterised by necrosis of loose connective tissue in the perineal and gluteal regions caused by the thrombosis of the small blood vessels in these regions. The Fournier gangrene is caused by synergistic polymicrobial infection both aerobic and anaerobic.

CASE PRESENTATION

The patient is a 46 years old male with anorectal adenocarcinoma with multiple metastases. He was hospitalised in the Department of Oncological Surgery and the carcinoma was confirmed with biopsy material taken by fibrocolonoscopy. The patient was not operated on but receiving conservative treatment. He received antibacterial monotherapy in outpatient conditions. Discharged in good general condition. Days after, he was admitted urgently to the Department of Coloproctology and Septic surgery in UMHAT "Dr G. Stranski" Pleven with two days of complaints of pain, swelling, darkening, incontinence and bad odour from the perineal region. These findings were significant for Fournier gangrene. The patient underwent surgical treatment- multiple fasciotomies, debridement, lavage and drainage. During the first one, about 300 ml pus was evacuated. Antibiotic combination and antiseptic solutions were used in the management of the infection.

CONCLUSION

The Fournier gangrene is a severe infection so that it needs multidisciplinary management involving surgeons, anaesthesiologists, reanimators and plastic surgeons.

KEY WORDS: Fournier; gangrene; anorectal; carcinoma

EXPLORATORY LAPAROSCOPY A DIAGNOSTIC TOOL FOR IDIOPATHIC ABDOMINAL PAIN: A CASE REPORT

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INTRODUCTION

Laparoscopy is a minimally invasive surgical technique that can be used for both diagnosis and treatment. In the diagnostic field, it is called exploratory laparoscopy. The laparoscope is a thin tube with a camera and light source that is inserted into the abdomen through a small incision. The camera transmits real-time images of the internal organs to a monitor, which allows the surgeon to see any abnormalities like tumors, cyst, adhesions, and other potential issues.

CASE PRESENTATION

The patient is a 62 year old male, admitted in the department of general surgery May 2023. He presented with idiopathic abdominal pain. He has a history of superficial chronic gastritis, diverticulitis. He has undergone Rutkow procedure of inguinal hernioplasty and the resection via laparoscopy of the sigmoid colon.

CONCLUSION

A careful anamnesis and a careful clinical examination of the patient associated with a good anatomical-functional knowledge of the structures involved, in this case the peritoneum, can gradually use the diagnostic means, but which in some cases do not lead to the diagnosis. Laparoscopy can be used as a diagnostic tool with excellent specificity. In particular, it should be noted that the diagnostic tool itself, in expert hands, is transformed into a surgical therapeutic tool that allows the problem to be tackled in a single session, arriving at the solution. The key to achieving therapeutic success in complex cases is a triangle composed of: in-depth medical history, evaluation of diagnostics, expertise in laparoscopic surgery.

KEYWORDS: exploratory laparoscopy, peritoneum, diverticulitis

THE ROLE OF ADJUVANT CHEMOTHERAPY AFTER RESECTION OF PANCREATIC CANCER AND ITS OUTCOMES

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AIMS/OBJECTIVES
Pancreatic cancer is associated with poor prognosis despite potentially curative surgery and chemotherapy. We aimed to investigate the role of adjuvant chemotherapy use in patients with pancreatic cancer and its association with survival outcomes.
MATERIALS AND METHODS
Data was collected retrospectively for 128 patients who underwent surgical resection for pancreatic cancer between 2016 and 2019 at a single institute. Our cohort‘s median age was 69, consisting of 51 females and 77 males. The follow-up period was 1 to 60 months. Most patients (66%) had histologically confirmed Pancreatic Ductal Adenocarcinoma (PDAC), whilst the remaining included Cholangiocarcinoma, Ampullary and Duodenal Cancer.
RESULTS
PDAC had the worst Overall Survival (OS), with a median OS of 25.7 months, whereas Ampullary cancer had the best outcome with a median OS of 41.3 months (P=0.07, NS). Univariate analysis showed incomplete chemotherapy was associated with worse OS in patients with PDAC (P0.012). 79% of patients had started chemotherapy after resection, and 58% of our patients completed adjuvant chemotherapy. However, 9.5% of patients declined adjuvant chemotherapy whilst 11.5% had prolonged hospital stays and were not deemed fit for chemotherapy after resection. Univariate analysis shows patients who did not have adjuvant chemotherapy had worse OS (P0.0016).
CONCLUSION
In conclusion, most of our patients started on adjuvant chemotherapy, and 58% completed chemotherapy, which is in keeping with the literature. However, a small proportion declined chemotherapy. These patients need to be counselled pre-operatively about the benefits of multi-modal treatment.

KEY WORDS: pancreatic cancer, HPB surgery, chemotherapy

RETROSPECTIVE ANALYSIS OF CHEMOPORT INSERTION: A SINGLE CENTER OBSERVATIONAL STUDY

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AIM
The aim of this study was to observe the characteristics of chemoport insertion in a tertiary care cancer surgery unit.
METHODS
Retrospective analysis of data was conducted on patient history data from 2017-2022. Inclusion criteria were i) age>18 years, ii) histological evidence of cancer iii) Indications for central venous access for chemotherapy. Patient exclusion criteria were i)Age18 years ii) Indications for central venous access for reasons other than chemotherapy.
RESULTS
A total of 140 patients underwent chemoport insertion between 2017 to 2022. Of these patients, 74 were women, and 66 were men. The mean duration of the procedure was 39 minutes (Standard deviation 18 minutes) (range 15-120 minutes). The mean age of the patients was 60 Years old. Average post operative HB count was 119. A sample t-test was conducted to test the effect of duration of procedure and its effect on post HB count, and no significance was found.
CONCLUSIONS
Chemoport Insertion is an essential procedure for all surgeons, and can be performed safely with minimising risks for the patient. Variant anatomy needs to be accounted for in a minority of patients.

KEY WORDS: chemoport, chemotherapy, oncosurgery

MALIGNANT MELANOMA WITH INGUINAL LYMPH NODE DISSECTION: A CASE REPORT

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INTRODUCTION

Malignant melanoma is a tumour arising from melanocytes. Lymphatic spread is the principal mode of spread and involvement of regional lymph nodes alter the prognosis, hence lymph node dissection is an important treatment option for patients with malignant melanoma. Inguinal lymph node dissection is recommended for patients with melanoma that is ulcerated or if it is located in areas such as genitalia and lower extremities.

CASE PRESENTATION

The patient is a 55-year-old male who was admitted with metastatic malignant melanoma of stage pT4a N2a cM0, Grade IIA in the inguinal lymph node in the right limb. The decision for surgery included an excision of the melanoma and dissection of inguinal lymph nodes. This decision was made on the basis of aggressive metastatic potential following lymph node infiltration. The patient was operated on under general anaesthesia. Intraoperatively, a 3 CM mass infiltrating the horizontal lymph nodes in the inguinal region was observed and dissected. Due to the close proximity of the involved lymph node to the femoral artery and vein, en-bloc resection was performed. A drain was inserted and the patient recovered with no complications. The patient was prescribed chemotherapy following discharge.

CONCLUSION

Histopathological examination of the resected lymph nodes revealed metastasis. This case report suggests that en bloc resection of inguinal lymph nodes in high grade malignant melanoma is a safe and well tolerated procedure.

KEYWORDS: lipogranulomas, fibrin, thrombi

PHD STUDENTS SECTION

CHAIRMEN:
Assoc. prof. Nadia Veleva, MD, PhD

SECRETARY:
Ralitsa Sotirova, OC

The life so short, the craft so long to learn.

Hippocrates

CASE REPORT OF SIMULTANEOUS ENDOMETRIAL AND CERVICAL CANCER - ROLE OF MAGNETIC RESONANCE TOMOGRAPHY AND COMPUTED TOMOGRAPHY IN PREOPERATIVE AND FOLLOW-UP STAGING

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INTRODUCTION

Endometrial cancer is one of the most common neoplasms in the world and is expected to increase given its risk factors, obesity and ageing of the population. Preoperative imaging is recommended for diagnostic work-up to tailor surgery and adjuvant treatment. Magnetic resonance tomography (MRT) is valuable to assess local tumour extent, and computed tomography (CT) to assess lymph node metastases and distant spread of the disease.

THE CASE PRESENTATION

We present a case of simultaneous endometrial and cervical cancer, with bilateral pulmonary metastases. MRT of pelvis was performed for preoperative staging in 54 y.o. with histologically verified endometrial cancer (after hysteroscopy and biopsy). It corresponded to the disease. Then robot-assisted radical hysterectomy class 2 with adnexectomy, biopsy of pelvic lymph nodes and vagina followed. Post-operative histological results showed simultaneous endometrial cancer and cervical cancer. CT of thorax and abdomen was performed for further staging, and it showed bilateral pulmonary metastases. Chemotherapy was subsequently started. Then a few follow-up body CT-scans were performed, and the pulmonary metastatic lesions were reduced.

CONCLUSION

In conclusion, this case presents that MRT and CT have important roles for preoperative and follow-up staging of endometrial and cervical cancer.

KEY WORDS: MRT, CT, endometrial cancer, cervical cancer, staging

ANALYSIS OF THE NURSES' ROLE IN TRANSITION CARE AT PATIENTS WITH ONCOLOGY DISEASES IN UMBAL „D-R GEORGI STRANSKI" – PLEVEN, BULGARIA

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INTRODUCTION

Oncology diseases are a leading social and health problem. Despite improvement in treatment and technology, oncology diseases in Bulgaria are detected in advanced stages. Nurses play a key role in planning, coordinating and delivering complex care in a short time frame. The focus of care is on targeted assessment of the condition, communication between professionals, and education of the patient and relatives in self care.

AIMS

The aim of the study was to evaluate the role of nurse during transition in care of oncology patients and to give recommendations for updating.

MATERIALS AND METHODS

We examined two groups: patients and nurses in oncology departments. Data were collected by direct individual self-administered questionnaires among 67 patients and 49 nurses. Data processing was with Microsoft Office Excel 2016 и SPSS v.25.

RESULTS

The analysis of the results showed the most common location of cancer is breast (32.8%). More than half of the patients have complications of the oncology disease (53.7%). After discharge, the respondents would turn for advice to an oncology physician (76.1%), only one indicates the nurse. The patients rely on the main help of the family (64.2%) to cope with the disease. A significant part of nurses answer affirmatively that they provide information to the patient according to their competences (77.6%) but it's oral (65.3%).

CONCLUSION

Nurses must play a vital role in improving the quality and safety of care. Intervention programs for the prevention of oncology diseases should be developed.

KEY WORDS: nursing, patient, community education/prevention programs.

PERITONITIS IN PATIENTS WITH CHRONIC KIDNEY DISEASE TREATED WITH PERITONEAL DIALYSIS

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AIMS/OBJECTIVES

Dialysis-associated peritonitis (DAP) is the most common infectious complication of peritoneal dialysis (PD). Clinically it can manifest with abdominal pain and cloudy dialysis effluent. Laboratory diagnosis is based on elevated white blood cell count >100x10^9/L and positive culture from dialysis effluent. The aim of the study is to evaluate the frequency, etiology and treatment of DAP in patients with chronic kidney disease (CKD), treated with PD.

METHODS

The study is retrospective and includes 69 patients with CKD V stage, treated with PD for the period 2008-2023 at the Clinic of Nephrology and Dialysis at UMHAT "Dr. Georgi Stranski", Pleven. Data is collected from medical documentation and hospital information system. Data analysis and graphical presentation is done with Microsoft Excel.

RESULTS

A total of 69 patients with CKD are treated with PD from 2008 to 2023. From them 34 (49%) are male and 35 (51%) are female at average age 53,7±14,9 years (from 18 to 77 years) with total average duration of treatment 30,2±25,8 months. Patients with main renal disease chronic glomerulonephritis are predominant – 22/69 (31,9%), followed by patients with diabetic nephropathy – 12/69 (17,4%). A total of 102 episodes of DAP are registered in 46/69 (66,6%) of the patients and 23/69 (33,3%) had no DAP. From them DAP with one isolated microorganism were found in 70/102 (68,6%) cases, followed by culture-negative peritonitis 22/102 (21,6%). S. epidermidis and S. aureus are the most commonly isolated microorganisms. The average frequency of DAP for the whole period is 1 episode per 20,4 patient-months. Most DAP episodes were treated with Cefazolin, Gentamycin and Vancomycin, applied intraperitoneally.

CONCLUSION

DAP is a serious complication of PD, which can compromise the treatment, leading to termination of PD or death of the patient. This is why the adequate diagnosis and treatment are essential for the preservation of this method of CKD treatment.

KEY WORDS: peritoneal dialysis, peritonitis, chronic renal failure

FROM SYMPTOMS TO SCANS: EVALUATING DIAGNOSTIC METHODS FOR ACUTE APPENDICITIS

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AIMS/OBJECTIVES
To contrast the accuracy and reliability of a physician's own diagnostic skills, utilising physical examination, history of the presenting complaint and laboratory parameters in the diagnosis of acute appendicitis, compared to cases of acute appendicitis in the same facility, confirmed by radiological imaging.
METHODS
Data was collected adhering to the remit of HSE/SWHG guidelines. The study focuses on the appendectomies performed in U.H.K. during a defined 6 month period. Criteria for qualification included full patient details accurately recorded and authenticated histopathology results.
RESULTS
Physicians who diagnosed the condition via the summation of physical examination, patient history and laboratory parameters (WCC, CRP, Neutrophil count) without the use of any imaging modalities, demonstrated an accuracy on-par with that of CT imaging. Ultrasound was the modality of choice for diagnosis of acute appendicitis, particularly in the paediatric population and demonstrated an accuracy of approximately 71.7%. CT Abdomen+Pelvis correctly identified approximately 90.3% incidences of acute appendicitis and was proven valuable in the exclusion of other intra-abdominal pathologies that served as possible differential diagnoses. The physician's own diagnosis, based upon the history of the presenting complaint, blood picture and physical examination, demonstrated an accuracy in this study of approximately 91.67%.
CONCLUSION
Radiological imaging is proven as a highly valuable asset in the diagnosis of acute appendicitis, it appears that physicians in the facility demonstrated a hesitance to perform appendectomies before an imaging confirmed diagnosis was available and a potential over-reliance on radiological imaging exists in the department.

KEY WORDS: appendicitis, radiology, surgery, imaging, diagnosis

REAL-TIME PCR ANALYSIS OF SPERM MICROBIOME IN PATIENTS WITH MALE INFERTILITY

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AIMS/OBJECTIVES
The presence of pathogenic microorganisms in semen is strongly associated with oxidative stress, spermal DNA fragmentations, alterations in spermatogenesis and male infertility. The aim of our study was to determine the type and frequency of the microorganisms in the sperm microbiome of patients with spermatogenic failure.
MATERIALS AND METHODS
The sperm microbiome of 86 patients with male infertility was analyzed by real-time PCR. Based on sperm count analyses the patients were divided into three groups – azoospermia, oligoasthenozoospermia, asthenozoospermia. We inspected the presence of fourteen different microorganisms, including Mycobacteria spp., Ureaplasma spp., Candida, Enterobacteriaceae spp., Trichomonas vaginalis, and Corynebacterium.
RESULTS
A high frequency of dysbiosis was detected in all groups – 66.7% of azoospermia, 55.3% of oligoasthenozoospermia and 47.6% of asthenozoospermia. Amongst the examined microorganisms Corynebacterium was detected in 83.7% of all patients, followed by Streptococcus spp. in 45.6%, Staphylococcus in 27.2%, Candida in 19.6%, and Gardnerella vaginalis in 18.5%. A significant number of Enterobacteriaceae spp. was detected in patients with azoospermia (66.7%), compared to the other two groups (36.8%) ($p=0.02$).
CONCLUSION
The results of our study revealed a high frequency of dysbiosis among patients with spermatogenic failure and a correlation between urogenital infections with Enterobacteriaceae spp. and azoospermia. Enterobacteriaceae are considered to be common pathogens of the urogenital tract and their role in spermatogenic failure should be analyzed in greater detail.
KEY WORDS: spermatogenic failure, male infertility, infections, azoospermia

AORTIC WAVE REFLECTION PARAMETERS IMPROVEMENT AFTER 1 YEAR STATIN TREATMENT IN HYPERTENSIVE PATIENTS WITH MODERATE CARDIOVASCULAR RISK FROM STARA ZAGORA AND REGION

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INTRODUCTION

Statins are proven drugs for the prevention and treatment of atherosclerosis in patients with dyslipidemia. Also they have pleiotropic effects - anti-inflammatory and stabilising atherosclerotic plaque independent of cholesterol level changes.

AIMS/OBJECTIVES

To investigate the medium-term impact of low-dose rosuvastatin on arterial stiffness in patients with primary arterial hypertension and moderate cardiovascular risk

MATERIALS AND METHODS

Prospective study of 98 statin-naive patients with arterial hypertension, LDL cholesterol level from 2,6 to 4,9 mmol/l and moderate cardiovascular risk from Stara Zagora and the region. All of them received recommendations for hygienic dietary regimen, and 50 patients were randomized to 5 mg rosuvastatin. Changes in arterial stiffness were monitored by cuff-based central pulse wave assessment before initiation of treatment, at 3 and 6 months.

RESULTS

In patients from the experimental group, we observe a reduction of intra-aortic pulse pressure, augmentation pressure and augmentation index, statistically significant both in relation to the baseline and to the control group parameters. There is no clear trend in the control group - in some patients there is a decrease, and in others an increase of the studied parameters by several points.

CONCLUSION

Observed beneficial central pulse wave changes are one of the mechanisms explaining vasoprotective effects of statin therapy. Cuff based central pulse wave assessment could be useful in deciding which patients would benefit most from statin therapy.

KEY WORDS: statin, central pulse wave assessment, cardiovascular risk

PHARMACY SECTION

CHAIRMEN:
Assoc. prof. Hristina Lebanova, Pharm D, PhD, MPH
Assoc. prof. Diana Pendicheva, MD, PhD

SECRETARY:
Nikol Nikolova, OC

It is easy to get a thousand prescriptions, but hard to get one single remedy.

Chinese proverb

MICROEMULSION FORMULATION FOR RAPID ONSET DELIVERY OF DICLOFENAC SODIUM

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INTRODUCTION

Microemulsions are potential drug delivery systems. They increase drug solubility and bioavailability, control drug release and reduce patient variability.

AIMS

Our study aimed to design a thermo-dynamically stable microemulsion formulation for Diclofenac sodium since it is poorly water-soluble. We focused on preparing such microemulsion which can be incorporated into a gel form to avoid the first pass metabolism and affect only the target area.

MATERIALS AND METHODS

Different pre-microemulsions were prepared - titrated with water dropwise to find the most suitable one for maximum increase in the drug solubility**.** Their chemical and physical stability were studied through phase separation observation over time. Different phase diagrams were prepared.

RESULTS

Most of the tested formulations were thermodynamically stable, remained in a single phase, were clear, and had no change in colour. Those containing Diclofenac sodium had no drug precipitation and no colour changes. The phase diagrams showed increased microemulsion region with the higher surfactant concentration.

CONCLUSION

The studies show that Sunflower oil (15%), Tween 80 (23.3%), Propylene glycol (23.3%), Absolute ethanol (23.3%), and Distilled water (15%) resulted in the highest solubilization of Diclofenac sodium (0.5%). The usage of the microemulsion technique led to improvement in drug bioavailability.

KEY WORDS: microemulsion, Diclofenac sodium, NSAID, bioavailability, drug solubility

DESIGN, SYNTHESIS AND BIOLOGICAL EVALUATION OF NOVEL DPP-IV INHIBITORS

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AIMS/OBJECTIVES

The current research is focused on the synthesis and structure optimization of novel dipeptidyl peptidase-IV (DPP-IV) inhibitors containing benzo[a]quinolizidine fragment and evaluation of their inhibitory activity and cytotoxicity.

MATERIALS AND METHODS

The binding mode of the synthesized compounds at the active site of the human DPP-IV enzyme is investigated using molecular docking. The results from the study are used to guide the structure optimization process.

The synthetic method for the preparation of the target compounds is based on the reaction between enolizable anhydrides and 3,4-dihydroisoquinolines, which is a variety of Castagnoli-Cushman reaction.

The inhibitory activity of the synthesized compounds on human DPP-IV was measured using Sitagliptin-like positive control. The cytotoxicity of all synthesized compounds on human mesenchymal stem cells was also evaluated.

RESULTS

Two series of compounds with analogous structure but with different substituents and heteroatoms have been successfully synthesized in moderate to excellent yields. The molecular docking indicated that the obtained compounds were in contact with the most important selectivity cliffs in the active site of DPP-IV.

One of the synthesized compounds was found to display inhibitory activity in the micromolar range similar to that of Sitagliptin. All compounds were shown to be non-cytotoxic.

CONCLUSION

The molecular docking approach allowed successful optimization of the structure of the benzo[a]quinolizidine inhibitors and to outline the necessary modifications to increase their potency as DPP-IV inhibitors. This synthetic methodology could provide a route to new heterocycles with potential biological properties.

KEY WORDS: cytotoxicity, inhibitor, docking, diabetes, synthesis

IN VITRO INVESTIGATION ON THE INFLUENCE OF CARBOMER CONCENTRATION ON THE RELEASE OF DICOFENAC SODIUM FROM FORMULATED GELS

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INTRODUCTION

Diclofenac Sodium is a potent member of the nonsteroidal anti-inflammatory drugs (NSAIDs), globally used because of its strong analgesic, antipyretic and anti-inflammatory effects. Carbomer can be used as a gelling agent for the development of gel formulations, because of its good release profile, water-soluble nature and good spreadability. Topical gel formulations give a suitable delivery system for drugs because it avoids first pass effects, gastrointestinal irritation, and metabolic devolution associated with oral administration.

AIMS/OBJECTIVES

The aim of the present study was to develop a topical gel of diclofenac sodium 1% using different concentrations of Carbomer 940 and evaluation of their physicochemical characteristics and in vitro drug release profiles.

MATERIALS AND METHODS

In the presented work were prepared four hydrophilic diclofenac sodium gels using different Carbomer concentrations. The preparations were evaluated in vitro using modified Apparatus 1 Eur.Ph., into phosphate buffer with pH 6,8 at 34±0,5°C and determined using UV-VIS spectrophotometer at 285 nm. To analyze the mechanism of the drug release rate kinetics of the dosage form, the obtained data was fitted into zero-order, first order, Higuchi and Korsmeyer-Peppas release models.

RESULTS

The percentage drug release for the formulations containing drug and carbopol F1 to F4 were found to be in the range of 14.14% to 58.01% in 6 hours. It was observed that Carbopol 940 gel containing Diclofenac sodium in 1:1.5 ratio (F3) produced better spreadability and consistency as compared to other formulations.

CONCLUSION

The results indicate that increase in the concentration of Carbopol 940, decreases the drug release.

KEY WORDS: diclofenac sodium, transdermal gel, viscosity, in-vitro drug release, in-vitro drug release kinetics study

THE PATHOPHYSIOLOGY OF OPIOID INTOXICATION

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INTRODUCTION
The opioid crisis represents a critical failure in healthcare, since opioids continue to be an excellent method of pain management in a clinical sense, it is often overprescribed, resulting in abuse.
AIMS
The aim of this study was to analyze the causes of drug, particularly opioid, overdose in Bucharest, as well as analyze the drug utilized, complication of the overdose and ICU time.
MATERIALS AND METHODS
We used a retrospective database consisting of 20 patients compiled by the Emergency hospital of Bucharest to determine the groups most at risk, the drugs utilized, the intention behind drug use, and several relevant factors to determine risk groups and drug manifestations.
RESULTS
The results of this study found that within Bucharest, the most common victims of opioid overdose are males aged around 30 to 40 years old, and generally were chronic users. The majority of opioid users overdosed due to accidental purposes, and it could be observed that those who ingested opioids for accidental reasons spent less time in the ICU than those who took drugs for suicidal purposes.
CONCLUSION
Our findings can contribute to a better understanding of why and how patients ingest opioids and the consequences of overdose. There were several limitations of the study due to its retrospective nature, as several factors were not recorded which may have contributed to causing the correlation between other factors.

KEY WORDS: opioids, pharmacology, intoxication, overdose

ASSESSING PRESCRIPTION RATES OF PHARMACOLOGICAL THROMBOPROPHYLAXIS AND THROMBOEMBOLIC DETERRENT STOCKINGS IN SURGICAL PATIENTS

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AIMS/OBJECTIVES
Hospitalization increases the risk of Venous Thromboembolisms (VTE) including deep venous thrombosis and Pulmonary embolism. NICE guidelines state that all surgical patients should be offered mechanical Thromboembolic Deterrent (TED) stockings and pharmacological thromboprophylaxis in the form of Dalteparin. The aim of the audit is to assess the use of TED stockings and pharmacological VTE prophylaxis in surgical patients as per NICE guidelines.
MATERIALS AND METHODS
The audit assessed the percentage of patients who were prescribed VTE prophylaxis who were admitted under acute surgical admissions. The first cycles adopted a retrospective approach. The implemented change was the introduction of a VTE checklist to prescribe TEDs and pharmacological thromboprophylaxis Dalteparin. The second cycle adopted a prospective approach.
RESULTS
The first cycle consisted of 81 patients. Of the 81 patients, Dalteparin was contraindicated in 2 patients due to bleeding risks. Of the remaining 79 patients, 76 patients (96%) received Dalteparin, whilst only 21 of 81 patients (26%) had TEDS prescribed. After the implementation of the checklist, the second cycle showed that 60 of the 63 patients (92%) had TEDS prescribed. The second cycle also showed an improvement in Dalteparin prescription from 96% to 100%.
CONCLUSION
Once a VTE checklist was implemented, the percentage of patients who were prescribed TEDS rose significantly from 26% to 92%. Likewise, the percentage of patients prescribed VTE improved from 96% to 100%, thereby meeting NICE guidelines.

KEY WORDS: venous thromboembolism, prevention, dalteparin, TED stockings

POSTER SECTION

CHAIRMEN:
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Assoc. prof. Stefan Trifonov, MD, PhD

SECRETARY:
Dzhemile Isuf, OC

Medicine is a science of uncertainty and the art of probability.
William Osler

P.1. RHYTHM - CONDUCTIVE DISORDERS AND COVID-19 INFECTIONS

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INTRODUCTION
Pandemy of COVID-19 infection - causes acute respiratory syndrome. Rhythm conduction disorders are a key element for the complications of COVID-19 infections.
AIMS/OBJECTIVES
The purpose of this research is to study the connection between newly appeared or recurring rhythm disorders for a period of one year for patients who have suffered from COVID-19 infection.
MATERIALS AND METHODS
An observation analysis of 118 patients with heart diseases and rhythm pathology, who have been hospitalised in the Clinic of cardiology of UMHAT " Dr. Georgi Stranski", Pleven, for a period between 01.03.2021-01.03.2022, was made. All of them have signed an informed consent to take part in the study.
RESULTS
Results have shown that out of 118 patients (men - 63,55% and women 36,44%), 92 patients have suffered from a COVID-19 infection - men 56 (60,86%), women 36 (39,14%). Out of them 29% have a newly appeared rhythm disorder, 53% have a recurring one and 18% are with a persistent disorder. Considering all of the patients, 26 of them have not suffered from COVID-19 infection (53,84% men and 46,16% women). 19,23% have a newly appeared rhythm pathology, 65,39% have a relapse and 15, 38% are with a persistent one. Those who have suffered from COVID - 19 infection are divided by a percentage ratio: atrial fibrillation - 51-46,92%, atrial flutter (8) - 7,36%, supraventricular extrasystole - (14)-12,88%, ventricular extrasystole - (19) - 17,48%. It was concluded via accurate statistics that atrial fibrillation has the highest frequency compared to all other researched rhythm pathologies.
CONCLUSION
The analysis of the gathered data shows moderate to strongly positive correlation between the number of COVID-19 infections and patients with rhythm pathology. Following this, COVID-19 infection is associated with increased risk of arrhythmias and this could be a result of direct or indirect damage of the myocardial tissue.
KEY WORDS: arrhythmias, COVID - 19

P.2. ANTICOAGULATION IN NONVALVULAR ATRIAL FIBRILLATION AND CHRONIC KIDNEY DISEASE

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INTRODUCTION

A case of a polymorbid 65-year-old Caucasian woman with decompensated heart failure (HF), arterial hypertension III gr, permanent atrial fibrillation (AF), coronary artery disease, chronic kidney disease (CKD), diabetes type 2, hypothyroidism, two ischaemic strokes in the past.

CASE PRESENTATION

A 65-year-old woman presenting with complaints of dyspnea, orthopnea and fatigue when walking 10-20m, which complaints had been progressing over the past 2-3 days. The patient noticed symmetrical oedema on her legs and perimalleolar region. Nicturia. Based on the patient`s anamnesis and physical examination, as well as the performed chest X-ray, ECG and transthoracic echocardiography the patient was diagnosed with exacerbated chronic congestive heart failure with reduced ejection fraction. After intensified loop diuretic therapy, decongestion was achieved. ARNI and SGLT2-inhibitors were added to the patient`s therapy. Rate control was achieved using a beta-blocker (Bisoprolol). Due to AF, the patient is indicated to take NOAC with a dose adjustment, depending on her calculated creatinine clearance.

CONCLUSION

In patients with atrial fibrillation and CKD, the dosage of anticoagulants should be adjusted depending on the creatinine clearance.

KEY WORDS: anticoagulation, AF, CKD, ARNI, SGLT2i

P.3. IMPACT OF THE COVID - PANDEMIC ON THE PATIENTS' EMOTIONAL STATE IN THE GENERAL MEDICAL PRACTICE IN BULGARIA

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AIMS/OBJECTIVES
The aim of the study is to evaluate and analyze the impact of the COVID-pandemic on the emotional state of patients in the General Medical Practice in Bulgaria.
MATERIALS AND METHODS
In July-December 2022, a survey was organized among randomly selected 306 GPs working in the PHC of Bulgaria. An individual questionnaire for self-completion was offered. The data was processed with a specialized statistical software package SPSS 22.
RESULTS
The COVID - pandemic has increased the number of patients with anxiety and depressive symptoms according to 95.3% of the surveyed doctors. The reasons for this are: social isolation - 79.4%, negative information from the media - 73.1%, uncertainty - 65%, financial worries - 51.7%, uncertainty about the future - 38.8%, other - 2.1%. The most frequently observed depressive symptoms in general practice are: sleep problems - 92.3%, chronic fatigue - 76%, weakness - 64.7%, headache - 58.3%, unexplained body aches - 42.3%, appetite problems - 32.3%, gastrointestinal disorders - 28.3%, sexual disorders - 19%, suicidal thoughts - 9%. A large part of the surveyed doctors - 75.3%, indicate that patients often resort to self-medication. In 60.6% of the cases self-medication is based on consultation with relatives and friends, 31% of the patients use experience from a previous condition, and 8.4% consult a pharmacist.
CONCLUSION
The COVID-19 pandemic has increased the number of patients with anxiety and depression in the General Medical Practice in Bulgaria. Bulgarians often resort to self-medication, despite the easy access to general practitioners and the possibility for consultation with a psychiatrist.

KEY WORDS: COVID-19 pandemic, depressive symptoms

P.4. PROBLEMS OF INTERACTION BETWEEN PRIMARY HEALTH CARE AND EMERGENCY MEDICAL CARE PROVIDERS IN BULGARIA

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AIMS
A survey of the opinion of managers of affiliate for emergency medical services (AEMS) and centers for emergency medical services (CEMS) regarding the problems of interaction between general practitioners and emergency care units and identifying measures for their improvement.
MATERIALS AND METHODS
Semi-structured interview of AEMS' and CEMS' managers. 21 interviews were conducted.
RESULTS
All respondents answered that they are familiar with the normative documents concerning the activity of emergency care. The relations between the CEMS and the general practitioners (GPs) were assessed as insufficient or completely ineffective in 95%. 81% indicated specific problems in these relationships - mostly uncharacteristic activities that emergency physicians have to perform during working hours such as providing medical assistance to non-emergency patients. Proposals for their improvement have also been reported. The main reasons for the patient's difficult access to general practitioners are their uneven territorial distribution with a shortage in settlements far from large cities (71%), a general shortage of doctors and the presence of social inequalities - lack of opportunity of patients to move to a medical care point.
CONCLUSION
The conducted research contains a significant amount of information received from responsible employees in managerial positions in AEMS and CEMS. After appropriate synthesis and extended analysis, proposals for management decisions in the field of emergency and urgent medical care have been developed.

KEYWORDS: primary health care, emergency medical care.

P.5. COMPARATIVE EFFECTS OF ALPHA-LIPOIC ACID, RIVASTIGMINE AND MEMANTINE ON A RAT MODEL OF ALCOHOL-RELATED BRAIN DAMAGE

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AIMS/OBJECTIVES
This study aimed to compare the therapeutic effects of alpha-lipoic acid, rivastigmine and memantine on a rat model of alcohol-related brain damage.
MATERIALS AND METHODS
Male Wistar rats were distributed into 8 groups, 6 animals each. The sole drinking fluid for 4 of the groups was ethanol (20% v/v) and for the other 4 - water. After 16 weeks, the groups were injected each day for 7 days with either of the following: alpha-lipoic acid (30 mg/kg i.p.), rivastigmine (1,5 mg/kg i.p.), memantine (5 mg/kg i.p.), or 0.9% NaCl (0.5 ml/100 g i.p.). Each substance was injected into 1 group that had received ethanol and 1 group that had received water. Each group was injected with only 1 substance. Each group was, afterwards, tested with a step-through passive avoidance test. After decapitation, brain weight was measured.
RESULTS
The animals who had received ethanol had the lowest brain weight and showed significant reductions in memory on the 24th hr. and the 8th day. These reductions were diminished in a similar manner by all 3 of the tested substances. The improvements in memory were higher in the animals who had received ethanol than in animals who had received water.
CONCLUSION
Alpha-lipoic acid, rivastigmine, and memantine can improve memory in a comparative manner in a rat model of alcohol-related brain damage. These findings are of special note regarding alpha-lipoic acid, a substance not used in the therapy of neurodegenerative disorders.

KEY WORDS: alcohol, alcohol-related brain damage, alpha-lipoic acid, rivastigmine, memantine

P.6. OUR EXPERIENCE ON THE APPLICATION OF TELEPATHOLOGY AND DIGITAL PATHOLOGY FOR INTRAOPERATIVE DIAGNOSTICS ON FROZEN SECTIONS

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INTRODUCTION

Telepathology and digital pathology in frozen section practice is discussed and investigated in contemporary studies. Here we present our experience on digitalized frozen section preparation and interpretation.

AIMS/OBJECTIVES

The aim of this study was the evaluation of the application of telepathology and digital pathology for intraoperative diagnostics on frozen section.

MATERIALS AND METHODS

Subject of prospective and retrospective study is the evaluation and analysis of 44 samples (17 frozen sections and 27 standard ffpe tissue samples) from 10 patients. The issue samples were scanned using the infrastructure of the Centre of competence "Leonardo Da Vinci" and uploaded for online evaluation in three distant centers by experienced pathologists. The results were compared and analyzed.

RESULTS

The results demonstrated the lack of significant diagnostic discrepancy between the frozen section materials and the FFPE tissue materials between all four centers. Quality issues were reported in more than half of the frozen section images, as well as in about 1/3 of the FFPE scans. Different aspects of quality issues regarding tissue slides were found (including staining intensity and contrast, presence of artefacts like wrinkles and folds, precipitates of different origin, lack of parts that fell of during processing). Interpretability rate was over 80% of the subscribed slides.

CONCLUSION

The application of telepathology and digital pathology for diagnostics on frozen section demonstrated promising results. Further investigation and additional specialized training of laboratory technicians is needed.

KEYWORDS: application, telepathology, diagnostics on frozen section

P.7. TIANEPTINE ABUSE: PHARMACOLOGICAL MECHANISMS AND REGULATORY CHALLENGES

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INTRODUCTION
Tianeptine, an atypical antidepressant, has garnered attention due to its potential for misuse and abuse, driven by its actions on mu-opioid receptors.
AIMS/OBJECTIVES
We present an overview of the pharmacological mechanisms of tianeptine, highlighting its propensity to elicit opioid-like effects at high doses. The report also explores the regulatory challenges associated with tianeptine abuse, including its availability over-the-counter in certain countries.
MATERIALS AND METHODS
Several cases of tianeptine abuse trends are presented and analyzed, along with the health risks and consequences, including overdose and withdrawal.
RESULTS
The report concludes by discussing proposed interventions and harm reduction strategies to address this emerging public health concern.
CONCLUSION
As tianeptine abuse continues to raise regulatory and healthcare challenges, this poster sheds light on the need for a comprehensive approach to mitigate its potential harms.

KEY WORDS: tianeptine, misuse, public health, regulatory measures, pharmacology aspects

P.8. MANAGING PERI-IMPLANT FRACTURE OF THE RADIUS IN OSTEOPOROTIC PATIENT - CASE REPORT

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INTRODUCTION

A 60 year-old, right-handed female, falls on her outstretched hand. Evaluation in the orthopaedic department demonstrates a visibly deformed, swollen neurovascularly intact right wrist and hand. Radiograph shows an intraarticular distal radius fracture with radial shortening and dorsal as well as intraarticular comminution. A year prior to the accident she had Dual-energy X-ray absorptiometry (DEXA) scan made which showed a Z-score of -3.0.

THE CASE PRESENTATION

A modular external fixator was applied, CT was ordered and the patient was discharged. After a week the patient reported increasing pain in the forearm after a fall. She was taken to the operating room for definitive fracture treatment. The fracture was temporarily reduced with K-wires and clamped in the presence of the external fixator. A 2.4 mm LCP distal radius plate was applied on the volar surface. On external fixator removal, a peri-implant radial diaphysis fracture was encountered. The approach was extended proximally and a DCP (dynamic compression plate) was applied on the tensile side of the radius. AP and lateral views were checked and found to be satisfactory.

One month after the operation the patient was called for a check-up. The radiography assessment showed no significant change.

CONCLUSION

Peri-implant fractures are rare, but understanding how to solve them is mandatory. Osteoporotic patients with severe comminution are at higher risk when managing the primary fracture with external fixator. Because of the stiffness of the construct and the presence of stress risers, working with caution is obligatory.

KEY WORDS: peri-implant radial fracture, osteoporosis

P.9. ASSESSMENT OF THE LUXATION RISK USING A DUAL-MOBILITY CUP COMPARED WITH OTHER METHODS IN HIP ARTHROPLASTY

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AIMS/OBJECTIVES
Hip fractures are common injuries, especially common in the elderly in emergency departments and in disaster situations. Total hip replacement with conventional capsule and hemiarthroplasty are the classic methods of surgical treatment of the fracture. However, they have disadvantages, such as frequent luxation and the need for revision. Therefore, this article evaluates whether the use of a dual-mobility cup in total hip arthroplasty reduces the risk of luxation.
METHODS
To this end, over 300 patients who sustained a fracture and were surgically treated with one of the three methods were statistically analyzed. After that they were sorted and statistically analyzed using IBM SPSS.
RESULTS
Ultimately, the use of a dual-mobility head appeared to statistically reduce the risk of luxation in our sample of patients.
CONCLUSION
In conclusion, the advice is to the surgical community if possible to use such treatment.

KEY WORDS: dual-mobility cap, total hip replacement, hip fracture, luxation

P.10. THORACIC EMPYEMA IN AN INFANT WITH SCARLET FEVER

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INTRODUCTION

Scarlet fever is a common childhood illness that usually has good prognosis. However, some lesser-known complications such as thoracic empyema can be life threatening especially in small age.

Here we aim to discuss a case of thoracic empyema as a complication of scarlet fever in infancy.

CASE PRESENTATION

An 8-month-old boy was admitted at the Paediatric Clinic of UMHAT "Georgi Stranski" - Pleven with the clinical signs of severe respiratory distress. Physical examination revealed a sub-febrile infant in a tachypnoeic and tachycardic state, with generalised cyanosis and pinkish-red rash, characteristic of scarlet fever. Emergent chest X-ray was conclusive of left-sided thoracic empyema, which was further confirmed with a chest CT scan. A thoracentesis was performed, and drains were placed to evacuate fluid. Following this, antibiotic therapy was initiated. Blood and pharyngeal swab cultures established Streptococcus pyogenes involvement, confirming scarlet fever.

CONCLUSION

The need for personalised delivery of care, as well as comprehensive treatment, is essential to overcome the challenges of rare and acute presentations of scarlet fever.

KEY WORDS: scarlet fever, empyema, infant

P.11. EARLY ONSET PANCREATIC CANCER: CASE REPORT

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INTRODUCION

Early-onset pancreatic cancer (EOPC), occurring in patients below 50 years of age, is uncommon and there is limited information regarding risk factors, molecular basis and outcome. This poster aims to elucidate a case of a young patient with an early onset pancreatic head adenocarcinoma.

THE CASE PRESENTATION

A 49-year-old male presents with jaundice and abdominal pain in the right hypochondriac region for the last two days. He has a history of acute pancreatitis and choledocholithiasis. The patient was subsequently admitted to the department of General surgery, UMHAT 'Dr Georgi Stranski' with suspicion of occlusion of the common bile duct.

During the operation, an advanced pancreatic tumour was found, with infiltration of the duodenum, the stomach and the transverse mesocolon, including the superior mesenteric artery. Liver metastases were found. A cholecystectomy was performed, alongside needle biopsy of the pancreatic tumour. Finally, choledocho-duodenal anastomosis was carried out.

CONCLUSION

Early onset pancreatic cancer (EOPC) is a rare disease with a very high mortality rate. Uncertainty exists regarding the prognosis of patients with this kind of oncological disease. Since EOPC presents with a more aggressive tumour biology, it is necessary for specialists to actively seek EOPC in young patients, presenting with those symptoms.

KEY WORDS: pancreatic carcinoma, early onset, young patients

P. 12. DIAGNOSTIC UTILITY OF ENDOCAN AND INTERLEUKINS FOR LATE-ONSET NEONATAL SEPSIS

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AIMS/OBJECTIVES
The aim of this study was to determine the potential of early inflammatory markers to diagnose late-onset neonatal sepsis - interleukin 6 (IL-6), interleukin 8 (IL-8) and endocan (ESM-1), and to compare them with routinely used markers like C-reactive protein (CRP) and procalcitonin (PCT).
MATERIALS AND METHODS
A prospective (January, 2022 – January, 2023) clinical-epidemiological study was conducted in a third level NICU in Pleven, Bulgaria. Patients with suspected nosocomial infection and healthy controls were tested. A sandwich ELISA method was used to measure the serum concentrations. Sixty newborns with an average gestational age of 29.75 ± 3.61 gestational weeks were included, of which 35% were symptomatic and infected, 33.3% were symptomatic but uninfected, and 31.7% were asymptomatic controls.
RESULTS
The mean values of PCT and IL-6 differ significantly in the three groups. For ESM-1, IL-8 and CRP, the difference was statistically insignificant. The best sensitivity (78%) and negative predictive value (84%) was found for IL-6.
CONCLUSION
The introduction into routine practice of indicators such as PCT and IL-6 may provide an opportunity to promptly optimise the diagnostic and therapeutic approach to LOS.

KEY WORDS: neonates; late-onset sepsis; inflammatory markers

P. 13. INVOLVEMENT OF CLONIDINE AND NOCICEPTIN ANALOGUES AFTER CHRONIC IMMOBILIZATION STRESS

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AIMS/OBJECTIVES

The catecholamine system, in particular the norepinephrine-and adrenalinenergic system, is known to have a key role in the perception of pain and in mediating the physiological response to stress. In 1995, the peptide nociceptin, which is a derivative of pronociceptin/orphanin was discovered and research was conducted on its biological action. Nociceptin and analogues are neuropeptides, and neuromodulators, which are able to inhibit the expression of some forms of stress-induced analgesia (SIA). Of interest is the effects of nociceptin analogs with the Clonidine after chronic immobilization stress (CIS).

Our study aimed to examines the effects of co-administration the Clonidine and nociceptin analogues on nociception after chronic immobilization stress.

MATERIALS AND METHODS

The experiments were conducted on male Wistar rats. The rats we're reducing their movements to a minimum of 3 hours for 4 days. By paw pressure test were studied analgesic effects. All analogues of N/OFQ were injected with Clonidine. Statistical analysis was performed using one-way ANOVA.

RESULTS

The results showed that Clonidine administration along after CIS decreased the pain threshold compared to the control and a group of chronic stress. Clonidine and investigated peptides after CIS increased the pain threshold considerably.

While nociceptin and analogues after CIS administered with Naloxone and Clonidine decreased the pain threshold significantly compared to a group with CIS only.

CONCLUSION

Our experiments proved that Clonidine after CIS participates in the analgesic effects of nociceptin analogs.

KEY WORDS: chronic immobilization stress. nociceptin analogues, Clonidine

P. 14. SCHILDER'S DISEASE: AN EXCEEDINGLY RARE AND DIAGNOSTICALLY CHALLENGING VARIANT OF MULTIPLE SCLEROSIS

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INTRODUCTION

Schilder's disease is a rare form of multiple sclerosis (MS) with a progressive course affecting mainly children and young adults. Both clinical and neuroimaging presentation often mimic a brain tumor or abscess.

CASE PRESENTATION

We present the case of a 29-year-old female admitted to the clinic with a progressive onset of visual, motor and cognitive deficits within the last seven years. The neurological examination revealed spastic paraparesis, hyperreflexia (D>L), positive Hoffmann and Trömner signs, discoordination and bladder dysfunction. The patient had been previously treated for seizures and obsessive-compulsive disorder (OCD). Brain MRI showed several ring-enhancing demyelinating lesions located in the periventricular and juxtacortical brain matter bilaterally and one large gadolinium-enhancing tumefactive lesion in the left temporo-parieto-occipital area. The initial clinical and neuroimaging data were insufficient for a definitive diagnosis. The additional tests for autoimmune markers, anti-viral and Borrelia antibodies were all negative. The cerebrospinal fluid (CSF) analysis showed normal cell count and biochemistry, but presence of oligoclonal bands. The neuropsychological tests indicated mild cognitive impairment. After high-dosage corticosteroids treatment, a considerable clinical improvement was observed. Presumably histopathological verification was not done.

CONCLUSION

The relatively early onset of complaints with the progressive clinical trajectory and the atypical MRI findings posed a diagnostic challenge at the beginning. The combination of clinical, CSF and neuroimaging data was suggestive of Schilder's disease. Though unique, this case report should emphasize the diverse spectrum of monophasic demyelinating diseases and the significance of timely diagnosis essential for successful treatment.

KEY WORDS: Schilder's disease, monophasic demyelinating disease, diagnostic challenge, rare variant of MS

P. 15. CASE OF A PATIENT WITH SEVERAL RARE DISEASES AND CHRONIC KIDNEY DISEASE

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INTRODUCTION

According to the European definition, a rare disease is one with a prevalence of no more than 5 per 10 000 people in the European Union. A patient with several rare diseases is presented: Kartagener's syndrome; Aggressive Berger's disease; Seropositive rheumatoid arthritis; Acute myeloid leukemia and several comorbidities.

CASE PRESENTATION

The patient was admitted in an extremely severe condition - weakness, inability to move, muscle pain, loss of sense of smell and taste, loss of appetite, nausea, difficulty breathing and shortness of breath, high temperature - 39.6°C, with established dextrocardia, sinusitis, bronchiectasis, hypertension, anemia, cirrhosis, hemangioma of the spleen, with reduced hearing since 10 years. A biopsy was performed in 2017 and IgA nephropathy with Schoenlien-Henoch purpura was demonstrated. Since 2019 with KCD 2-3. Due to worsening of renal function in the course of severe Covid-19 pneumonia infection, hemodialysis treatment is started. Repeated hospitalizations for recurrent pneumonia and seropositive rheumatoid arthritis followed. After the condition improved and he returned to work, pancytopenia was detected, and the myelogram showed acute myeloid leukemia, trepanobiopsy - myeloproliferative dysplasia.

CONCLUSION

The patient has 4 rare diseases and multiple co-morbidities. Treatment by an interdisciplinary team is necessary.

KEY WORDS: Kartagener's syndrome, aggressive Berger's disease, seropositive rheumatoid arthritis, CKD, renal anemia.

P. 16. AN OSTEOMYELITIS CASE – A SEVERE COMPLICATION OF PARONYCHIA

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INTRODUCTION
Although osteomyelitis can occur in any age, it is rare in childhood and is often misdiagnosed due to its various presentation. Delayed diagnosis of osteomyelitis could lead to a number of acute and chronic complications. Our aim is to present a rare case of osteomyelitis in adolescent age caused by recurrent paronychia.

CASE PRESENTATION
A 13 year old boy was admitted at the Pediatric clinic of UMHAT-Pleven with complains of severe pain in his left leg, restraining his movement and abdominal pain. A trauma of the left hip during a football game two days ago was reported. The day after the trauma limping, intermittent fever and fatigue occurred. At admission the patient was unable to walk or stand, subfebrile with an intoxicated face. Sharp pain suprapubic and in the left abdominal region radiating to the left hip was present. There was no edema and hematoma on the hip joints, no difference in size between both thighs. Flexion in the left hip joint was suboptimal and painful. Paronychia in the big toes bilateral was detected. Laboratory and imaging testing excluded trauma, myositis, acute abdomen and neurological pathology. On CT scan it was proved focal bony lysis of symphysis and pubic bone and inflammation of left hip joint. Microbiological cultures of blood and paronychia pus shows Staphylococcus aureus.

CONCLUSION
Early recognition and proper treatment of osteomyelitis in paediatrics patients may help to reduce chronic complications as permanent deformations or systemic dissemination.

KEY WORDS: osteomyelitis, paronychia, adolescent age

P. 17. EFFECT OF PHYSICAL TRAINING ON ARTERIAL STIFFNESS AMONG UNDERGRADUATE MBBS STUDENTS

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INTRODUCTION

Arterial stiffness is defined as a vascular phenotype caused by the changes in the walls of large arteries resulting from the loss of elasticity over time. It is recognized as an independent and significant predictor of cardiovascular morbidity and mortality & positively influenced by physical activity possibly via improvement of endothelial function.

AIMS/OBJECTIVES

To determine the effect of exercise training and gender on arterial stiffness among Undergraduate MBBS students.

MATERIALS AND METHODS

This is a Cross sectional Study on 249 MBBS students satisfying inclusion & exclusion criteria. Physical Activity was assessed by the International Physical Activity Questionnaire. The pulse volume recorded by Pulse transducer & Student physiograph. Height was measured.Stiffness Index= height /difference in peaks of pulse wave.

GROUP 1:INSUFFICIENTLY ACTIVE
GROUP 2:ACCEPTABLE
GROUP 3:ACTIVE & HEALTHY

RESULTS

There was a statistically significant difference between groups as determined by one-way ANOVA. A Tukey post hoc test revealed that the arterial stiffness scores was statistically significantly higher in group 1 compared to group 3.There was no statistically significant difference between group 1& group 2

CONCLUSION

As from the study, the majority of the students come under the group of insufficiently active with high stiffness index which can lead to complications in the future. Physically Inactive students are more prone for increased arterial stiffness.The significance of this study is to intervene & mitigate the adverse consequences especially in those who are at low and intermediate risk for cardiovascular disorders

by assessing Arterial Stiffness Index.This study helped in establishing relationship between the Arterial Stiffness and physical activity.

KEY WORDS: arterial stiffness index, physical fitness, physiograph, endothelial thickness

P. 18. CLEAVED CASPASE 3 AND KI-67 INDEX ON DIAGNOSTIC BIOPSY IN THE CONTEXT OF POST TREATMENT TUMOR T STAGE, N STAGE, AND GRADE

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INTRODUCTION

Controversy exists on the relation of caspase 3 and Ki-67 to other main prognostic factors in breast cancer.*

AIMS/OBJECTIVES

Aim of the following study was to evaluate the relation of Cleaved caspase 3 and Ki-67 index on diagnostic biopsy in the context of post treatment tumour T stage, N stage, and grade.

MATERIALS AND METHODS

A retrospective analysis was carried out among 109 breast cancer patients (108 female and 1 male). Biopsies (tissue samples) taken prior to neoadjuvant chemotherapy and post neoadjuvant therapy were analyzed using immunostaining for Cleaved caspase 3 and Ki-67 index, according to protocols provided by the manufacturers. Staining was scored according to methods available in literature. Statistical analysis was

performed using Kruskal- Wallies and the $\chi 2$ test. Values for p0,05 were considered significant.

RESULTS

Ki-67 demonstrated a significant difference between tumour grade categories after neoadjuvant therapy (K-W=8.4356, p=0.0147). Ki-67 also demonstrated a significant difference between tumour stage yT categories after neoadjuvant therapy (K-W=11.7944, p=0.0377), but not between yN categories after neoadjuvant therapy (K-W=4.1929, p=0.2414).

Caspase 3 from diagnostic biopsy demonstrated no significant correlation to grade categories after neoadjuvant therapy ($\chi 2$=3.29, Df=2, p= 01927), and yN categories after neoadjuvant therapy ($\chi 2$=2.70, Df=3, p= 0.4401).The stage yT categories after neoadjuvant therapy demonstrated tendency towards correlation, although the sample was small for general conclusions ($\chi 2$=27.02, Df=5, p= 0.0001).

CONCLUSION

Cleaved caspase 3 and Ki-67 index on diagnostic biopsy are found to be related to some of the post treatment prognostic factors (tumour T stage, N stage, and grade), but further investigations are required to demonstrate more details of the connection between the studied variables.

KEY WORDS: caspase 3, Ki- 67, prognostic factors

The study is under project № 6/2022, financed by Medical University-Pleven.

P. 19. CLEAVED CASPASE 3 AND NOT KI-67 INDEX ON DIAGNOSTIC BIOPSY IS RELATED TO RESPONSE TO NEOADJUVANT CHEMOTHERAPY

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AIMS/OBJECTIVES

Aim of the following study was to evaluate the relation of Cleaved caspase 3 and Ki-67 index on diagnostic biopsy to response to neoadjuvant chemotherapy, as well as in different molecular subtypes of breast cancer .

MATERIALS AND METHODS

A retrospective analysis was carried out among 109 breast cancer patients (108 female and 1 male). Biopsies taken prior to neoadjuvant chemotherapy and post neoadjuvant therapy were analyzed using immunostaining for Cleaved caspase 3 and Ki-67, according to protocols provided by the manufacturers. Staining was scored according to methods available in literature. Statistical analysis was performed using Kruskal-Wallies and the $\chi 2$ test. Values for p0,05 were considered significant.

RESULTS

Cleaved caspase 3 positive cases on diagnostic biopsy were found to be significantly more common among the group of breast cancer demonstrating complete pathologic

response (according to Sataloff) compared to cases with partial or no response ($\chi 2$=5.97, Df=1, p= 0.0145). Caspase 3 from diagnostic biopsy demonstrated no significant correlation to molecular subtype categories after neoadjuvant therapy ($\chi 2$=6.98, Df=4, p= 0.1373). Ki-67 demonstrated no significant difference between patients with complete pathologic response, compared to patients with partial and no response (K-W=3.2385, p=0.0719). Ki-67 demonstrated significant differences between patients with different molecular subtypes (K-W=28.5439, p0.0001).

CONCLUSION

Our study demonstrated that cleaved caspase 3 positive breast cancer cases are often better responders to neoadjuvant therapy. In contrast, Ki-67 does not seem to be predictive of response to neoadjuvant therapy. Further investigations are required to observe the detailed correlations among specific subtypes of breast cancer.

KEY WORDS: breast cancer, caspase 3, Ki-67, neoadjuvant chemotherapy

P. 20. EVALUATING KI-67 INDEX IN BREAST CANCER BEYOND STANDARDS

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AIMS/OBJECTIVES

Aim of the following study was to analyze the application of standardized Ki-67 evaluation in cases of heterogeneous breast cancer.

MATERIALS AND METHODS

Subject to retrospective study were 12 cases of heterogeneous carcinomas of the breast. Results from core biopsies and resections were analyzed and individual tumor components were evaluated separately according to contemporary recommendations for Ki-67 in breast cancer. The two most predominant types were considered in cases of three of more components. The results were statistically analyzed, using paired t-test. Values of p0.05 were considered significant.

RESULTS

The separately evaluated Ki-67 index in each of the heterogeneous components in tumors does not demonstrate statistically significant difference of mean values t=0.4802, p=0.6405. More aggressive tumour components (like metaplastic carcinoma) demonstrate higher Ki-67 compared to accompanying NST component,

but less aggressive tumors (like mucinous carcinomas) demonstrate lower Ki-67 (compared to accompanying NST). Sometimes, the complete regression of the more proliferative component leads to significant inconsistency between ki-67 values before and after neoadjuvant chemotherapy.

CONCLUSION

Heterogeneous breast carcinomas present a challenge for Ki-67 evaluation and interpretation, since contemporary standards are not adapted for such tumours. From our perspective, in morphologically heterogeneous tumours, Ki-67 should be evaluated separately for each component.

KEY WORDS: breast cancer, heterogeneous, Ki-67, proliferative index.

P. 21. SHORT-TERM REDUCTION IN AUGMENTATION INDEX AFTER THIOCTIC ACID INFUSION

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INTRODUCTION

Thioctic acid is a powerful antioxidant synthesized during World War II. Currently,one of its main applications is for the treatment of diabetic polyneuropathy

CASE PRESENTATION

We present a 45-year-old man with type 1 diabetes mellitus (12-year history), no history of macrovascular complications, a mild form of diabetic retinopathy and diabetic polyneuropathy diagnosed a year ago. Concomitant diseases - arterial hypertension with a 5-year history, satisfactory control against the background of ACE-inhibitor and calcium antagonist. Dyslipidemia - 4 years history, target levels reached with 20 mg rosuvastatin and 10 mg ezetimibe. General status without deviations. The central pulse wave assessment was performed one day before his scheduled admission for treatment of diabetic polyneuropathy with thioctic acid and again after completion of the therapeutic course of 5 infusions on the day of discharge. Impressive are the reduction of augmentation pressure, augmentation index and augmentation index 75 after treatment course. Unfortunately these beneficial changes totally disappear after 2 weeks (We made a third central pulse wave assessment during the follow-up examination).

CONCLUSION

We assume that the observed breakouts are due to the antioxidant and anti-inflammatory action of thioctic acid. Unfortunately, due to their short-term effect, their action as regards arterial stiffness cannot be clinically utilized. Other authors have made similar observations with regard to pulse wave velocity. Therefore, we don‘t recommend arterial stiffness testing recently after thioctic acid administration.

KEY WORDS: thioctic acid, augmentation index, short-term beneficial effects

P.22. HIGH-FAT DIET-INDUCED DYSLIPIDEMIA, MEMORY IMPAIRMENT, AND HIPPOCAMPAL DISRUPTION IN RATS AMELIORATED BY AQUEOUS EXTRACT OF CLITORIA TERNATEA FLOWER

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AIMS/OBJECTIVES
Dyslipidemia has become a global concern which contributes to chronic oxidative stress, resulting in systemic organ disruption, including the brain, thus influencing its structure and function. Clitoria ternatea (CT) flower is a valuable phytochemical product that exhibits antioxidant and memory-improving capacity to ameliorate dyslipidemia-related conditions that is evaluated in this research.
METHODS
A true experimental post-test only was conducted using Wistar rats (n=15) that were divided into the normal diet (ND), high-fat diet (HFD), and treatment group (HFD+CTE). The CTE was obtained by the aqueous extract method. The post-treatment body weight, lipid profile, memory function (Y-maze test), and hippocampal histological appearance were measured and analyzed.
RESULTS
CTE showed a total phenol content of 2039.92 mg/L in GAEAC. The overall cholesterol, LDL level, spatial memory, and hippocampal cell count were found to be significant (p0.001; p=0.001; p0.001; p=0.039; and p=0.021, respectively). The HFD group had the highest total cholesterol level when compared to the HFD+CTE750 group (MD: 115.65; p0.001). Significant differences in spatial memory were found in the HFD+CTE250 group compared to the HFD group (MD: 37.70; p=0.001). The hippocampal cell counts significantly decreased in the HDF group, and a larger number was found in the HFD+CTE750 group (MD: -82.33; p=0.03).
CONCLUSION
The HFD contributes to dyslipidemia, impaired memory function, and hippocampal disruption in rats that are ameliorated by Clitoria ternatea extract.

KEY WORDS: clitoria ternatea, dyslipidemia, high-fat diet, hippocampal histology, spatial memory

P.23. EVALUATION OF THE FACTOR "EARLIER OPERATIVE TREATMENT" IN RELATION TO LOWER MORTALITY RATES AMONG GERIATRIC PATIENTS TREATED WITH PROXIMAL FEMORAL FRACTURE (META-ANALYSIS)

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AIMS/OBJECTIVES
Proximal femur fractures account for a large proportion of hospitalizations in trauma cases. The majority of these patients (>90%) are over the age of 50 years.
METHODS
Treatment of these patients is often operative and the outcome depends on many factors.
RESULTS
In this article, a meta-analysis evaluated earlier operative treatment as a factor in reduced mortality. A statistical association and correlation between the time a patient is admitted to the hospital and their surgical intervention is determined. Correlation is sought between time in hours and subsequent factors and conditions after surgery, such as HHS and mortality.
CONCLUSION
In addition, the relationship between time and other medical complications following surgical treatment is determined.

KEY WORDS: femur fractures, meta-analysis, operative treatment

P.24. OPTIMIZING TISSUE SLIDES FOR RAPID DIGITALIZATION. A STEP TOWARDS INTRAOPERATIVE FROZEN SECTION ROUTINE TELECONSULTATIONS PROTOCOL

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INTRODUCTION

According to literature median specimen handling time of about 11min is required for whole slide imaging teleconsultation on frozen section (1).

AIMS

Our aim is to optimize tissue samples parameters (size and quality) for the need of intraoperative frozen section teleconsultations.

MATERIALS AND METHODS

Seventy one routinely prepared tissue samples approved and used for educational purposes (part of the educational slide collection of the department of general and clinical pathology)were digitalized on Olympus system. The studies were conducted within the framework of a project at the Center of competence "Leonardo Da Vinci". Slides were scanned routinely in one plane and if required (due to artifacts, a 7mm z-stack was performed). The scanned area, the time for scanning and uploading, the use of z-stack were recorded and analyzed. Parameters were statistically analyzed, using appropriate statistical tests (one way ANOVA and Kruskal-Wallis test). Results of p0,05 were considered statistically significant.

RESULTS

The average time for scanning processing and uploading an image was 21min. (ranging from 10 min to 35min). From the scanned 71 slides, 5(7.04%) required rescanning due to lack of focus in substantial fields, that made interpretation difficult and uninterruptable. Due to the nature of the samples, z-stack scanning was used to achieve acceptable results I 4 of the cases. One case needed preparation of new slide due to tissue and staining artifacts (although was somewhat usable). Slide size was significantly related with scanning time f=18.17, p=0.0001. Another factor

significantly increasing the time for scanning is the use of z –stack K- W=6.5511, p=0.0105.

CONCLUSION

Slides with scan area of 2mm2 or less, scanned in one plane were ideal for tele consultation purposes as the required extra time was less than 20min.

KEY WORDS: frozen section, teleconsultation, optimization protocol

INDEX

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2. Croatian Student Summit (CROSS 18), Zagreb, Croatia
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5. iMED Conference, Lisbon, Portugal
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6. International Congress of Medical Sciences (ICMS), Sofia, Bulgaria
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