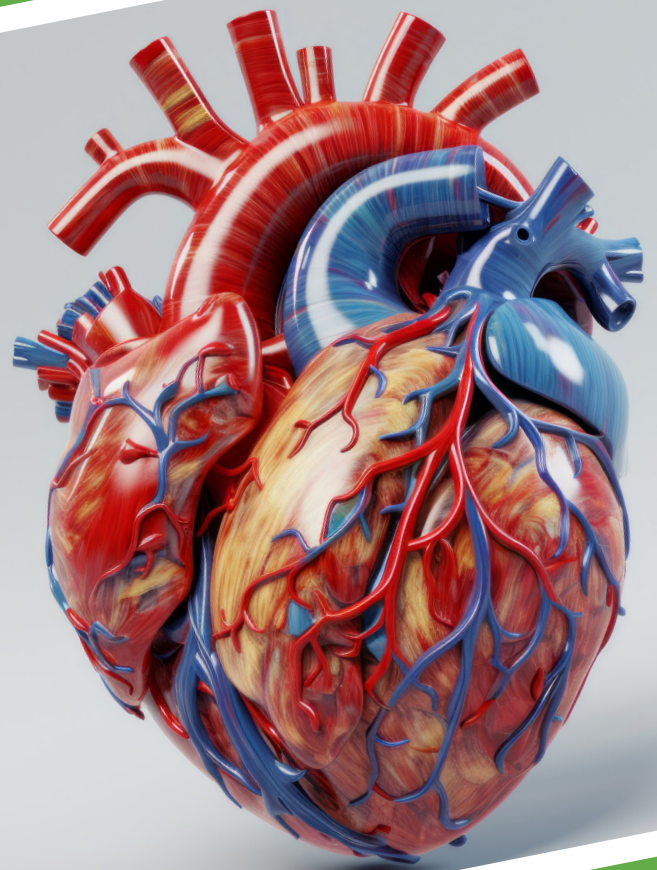


5th world

HEART CONGRESS

November 12-13, 2025 | Barcelona, Spain



Venue: Hotel Alimara

Carrer de Berruguete, 126, 08035 Barcelona, Spain

Day 1

November 12, 2025 | Barcelona, Spain

Scientific Program

08:30–08:45: Registrations

08:45–09:00: Opening Ceremony

Keynote Presentations



09:00–9:40

Title: The Prevention and Early Diagnosis of Breast Cancer of Young Women in The Region of Trencin – Retrospective Study

Jana Slobodnikova

Alexander Dubcek University of Trencin, Slovakia

Session Introduction

Tracks

Cancer Biology and Biomarkers | Traditional Therapy for Cancer Treatment | Cancer Screening and Diagnosis | Neuro and Radiation Oncology | Translational Research in Cancer Care | Cancer: Awareness, Lifestyle and Nutrition | Heart Failure | Innovations in Cardiology | Cardiology- Case Studies | Heart Failure and Cardiomyopathies | Cardiovascular Diseases and Risk Factors | Arrhythmia

Session Chair: Prof. Dr. Jana Slobodnikova, Alexander Dubcek University of Trencin, Slovakia

Oral Presentations

09:40–10:05

Title: Hyperbaric Oxygenation In Radiation-Oncology: Before, During, and After

Jordi Desola

Hyperbaric Therapy Unit of Barcelona, Spain

Group Photo | Coffee Break 10:05-10:25@ Foyer

10:25–10:50

Title: Effects Of Hospital-based Rehabilitation on Functional Capacity of Heart Failure Patients

Wissam Ibrahim Khalife

The University of Texas Medical Branch, USA

10:50–11:15

Title: Hypertrophic Cardiomyopathy (HCM) with Bicuspid Aortic Valve and Severe Aortic Stenosis in a Young Patient with Positive Transthyretin (TTR) Gene Mutation

Turki Alasmari

Prince Sultan Cardiac Center, Saudi Arabia

11:15–11:40

Title: Cancer and Stem Cell Therapy

Karen Cabiloque

University of San Agu, Philippines

11:40–12:05

Title: Validation of the Padua Prediction Score in Predicting Venous Thromboembolism Among Patients with Chronic Kidney Disease Admitted to the Intensive Care Unit: A Retrospective Cohort Study

John Carlo L. Tuazon

National Kidney and Transplant Institute, Philippines

12:05–12:30

Title: Screening of the Breast Cancer in Slovak Republik, Pilot Program

Jana Slobodnikova

Alexander Dubcek University of Trencin, Slovakia

12:35–12:55

Title: Effects Of Hospital-based Rehabilitation on Functional Capacity of Heart Failure Patients

Amal Albatini

Ministry of health, Shuwaikh, Kuwait

Lunch Break 12:55-13:55

13:55–14:20

Title: Assessment of Metrics in a Research Center by Comparing Resource Utilization Before and After the Incorporation of a Digital Protocol Management System

Fernando Guerlloy

CIPREC, Argentina

14:20–14:45

Title: Left Atrial Myxoma Presenting as Multiple Embolic Strokes in a Young Female: Case Report

Mandeep Singh

Princess Alexandra Hospital NHS Trust, UK

14:45–15:10

Title: NK Cell Therapy: A New Era of “Off-the-Shelf” Cellular Immunotherapy for Cancer

Eugene Zadorin

Spain

Coffee Break 15:10-15:25@ Foyer

Panel Discussion & Certificate Falcitation
Day –1 Ends

Day 2

Scientific Program

**Virtual Mode Zoom Meeting
(GMT+2) Time in Spain**

November 13, 2025 | Virtual

Oral Presentations

09:00–09:20

Title: Role of Endometrial Ablation in Women with Precancerous Uterine Lesions. The Other Side of the Story

Mohamed M Hosni

Imperial College Healthcare NHS Trust, London, United Kingdom

09:20–09:40

Title: A Review and Comparison Of Immune-Checkpoint Inhibitors In The Treatment Of Metastatic Uveal Melanoma

Ajmal Zadran

Kettering General Hospital, United Kingdom

09:40–10:00

Title: Effect of Timing of Surgery and Chemotherapy After Initial Diagnosis for Early Breast Cancer on Survival

Shaghayegh Kamian

Shahid Beheshti University of Medical Sciences, Iran

10:00–10:20

Title: Targeted Nanomedicine and 3 D printing- Challenges and Strategies against Global Cancer

Yamini Sudha Laksmi

University of Madras, India

10:20–10:40

Title: Association of Atrial Fibrillation with Patient Characteristics in Postoperative Coronary Artery Bypass Grafting Surgery

Hafiz Ali Shabbir Rajput

Royal Liverpool University Hospital, UK

10:40–11:00

Title: IgY antibodies for the Immunoprophylaxis in microRNA21 as a biomarker related to Breast Cancer and Heart Disease

Shiny Beulah

University of Madras, India

11:00–11:20

Title: Crypto-Transethosomal Gel Technology: A Novel Approach For Topical Melanoma Treatment Using Mequinol With Glutathione-S-Transferase Inhibitor

R. Prabhu

The Tamilnadu Dr. M.G.R Medical University, Chennai, India

11:20–11:40

Title: Regulation of miRNAs, Prognostic Biomarkers and Therapeutic Targets in Osteosarcoma using Cans Forte – A Herbal Formulation

Monisha

University of Madras, India

11:40–12:00

Title: Analysis of Pattern and Prognostic Factors of Non-Hodgkin Lymphoma From A Tertiary Care Hospital in Saudi Arabia

Abdullah Alseraye

King Saud Bin Abdulaziz University for Health Sciences, Saudi Arabia

12:00–12:20	Title: An Overview on Therapeutic Potential of PHF in the management of Colorectal Cancer: Mechanistic insights and Future Direction Yavanika University of Madras, India
12:20–12:40	Title: Successful Management of Dilated Intrahepatic and Extrahepatic Ducts with Adenocarcinoma of the Pancreatic Head: A Case Report and Literature Review Adline Ben-Chioma Rivers State University, Nigeria
12:40–13:00	Title: Building Resilience through Lifestyle and Nutrition in Cancer Prevention Anita V. Handore -Salunke Founder and Director, Phytoelixir Pvt.Ltd, Nashik, India
13:00–13:20	Title: we will update soon..... Seraye Alseraye Slovakia
13:20–13:40	Title: we will update soon..... Shaista Suhail we will update soon.....

Panel Discussion



5th world

Heart Congress

November 12-13, 2025 | Barcelona, Spain

HYBRID EVENT

KEYNOTE PRESENTATIONS
DAY 1



Slobodnikova Jana ^{1,2*}, Kaslikova Katarina¹

¹Alexander Dubcek University of Trencin, Faculty of the Health care, Slovakia

²Clinic of Radiology, Trencin, Slovakia

Screening of the Breast Cancer in Slovak Republik, Pilot Program

In 2018, the Government of the Slovak Republic approved the National Oncology Program for the first time. In the year 2019 was declared by the Ministry of Health of the Slovak Republic as the Year of Prevention, by which solid conditions were created for Slovakia to be included among the advanced European ones countries in which there are organized screening programs for selected oncology disease is one of the basic measures of the country's level of health care. In January 2019, new standard procedures for the performance of prevention for mammography came into force screening. The first phase of the screening program was carried out in Slovakia from January to October 2019. In September 2019, a nationwide organized mammography was also launched screening, which with a three-month break in 2020 (April-June), continues. In working groups for individual screening programs have developed methodological procedures for invitations, reporting of codes of procedures and diagnoses, together with patient organizations, in cooperation with the Ministry of Health of the Slovak Republic. Experts have also prepared a plan for media activities to raise awareness of the need for population screenings.

Material and methodology: In 2019 and by the end of June 2020, data were collected from 16 verified ones screening mammography workplaces according to the valid standard procedure. In this In the analysis, the data from 3.9.2019 to 30.6.2020 from all workplaces were summarized. When evaluating screening mammography, the standard BI-RADS classification is used. BI-RADS 1 that result examination is negative; BI-RADS 2: the test result is benign; BI-RADS 3: the result is probably benign; BI-RADS 4: the result is probably malignant and BI-RADS 5: the result is malignant.

Results: From the beginning of mammographic screening until June 30, 2020, it was screening together 34,842 mammographic screening participants were examined by mammography, which is 9.6 percent examinations from the entire screened population of women aged 50-69 years. They are published further in the text numbers of examined women and relative participation in individual regions and districts. Detected malignancies and their stage: In the observed screening period, 34,842 were examined women, a total of 229 cancers were detected (hereinafter) predominantly in the early stages.

Discussion: Breast cancer is one of the most common malignancies in women worldwide in terms of incidence 47.8% and mortality 13.6% (<https://gco.iarc.fr/>). It is estimated that in 2020, within the EU-27, breast cancer reaches 13.3% of all newly diagnosed cancers and also forms 28.7% of all cancers in women. https://ecis.jrc.ec.europa.eu/pdf/Breast_cancer_factsheet-Dec_2020.pdf According to the latest published yearbook, the incidence of cancer has increased in Slovakia in 2011 up to 2,800 new cases, with locally advanced and metastatic disease almost 30%. (Incidence of malignant tumors of the Slovak Republic 2012, NCZI 2021).

Conclusion: The overall participation of women in mammography screening is relatively low. It is given by several factors: individual verified screening mammography workplaces entered the screening continuously until December 2019; in 2020 it stopped for 3 months, as well as reduced attendance COVID-19 pandemic workplace. There is no address system in Slovakia invitations. Only women who did not participate in the previous mammography at all were invited or more than two years before the start of mammography screening as well as women who are being treated with a diagnosis of breast cancer. The onset is therefore estimated to be gradual and lasting several years until we reach the recommended participation rate of 70-80 percent. It is estimated that about 20 - 30 percent of women in Slovakia graduate unverified mostly mamodiagnostic workplaces preventive mammography, which is the so-called gray or opportunistic.

Key words: Breast Cancer, Screening, Mammography, Pilote Program

Biography:

Jana Slobodníková, M.D., CSc, Ass. Prof. - born in 1961 in Czech republic, graduated on Charles University in Prague, Faculty of Medicine, specialization of Radiology I and II. Gr. Post-doc graduated – CSc. (PhD) completed at the age 38 years at the Institute of Experimental Oncology, Slovak Academy of Sciences. Ass. Prof. in 43 years from Tyrnaviensis University, hosting professor at age 45 from St. Elizabeth High School in Bratislava. From June she is Magister of the Public Health. She has been teaching at several universities in Prague, Trenčín, Trnava and Bratislava.

She worked for 8 years as a head of the Radiology Clinic of the St. Elizabeth Oncology Institute in Bratislava, and now she is also head of the Department of Laboratory Testing Methods in Health Care and Public Health of Faculty of the Health Care on Alexander Dubček University of Trenčín, 16 years head of Clinic of Radiology in Trenčín. She is author of teaching text, university textbooks, lead workshops, she organized international congresses and workshops.

She has published more than 90 scientific papers, from then 25 papers in renowned journals and has been active as editorial board member of repute in 5 scientific periodicals. She has published 3 monographies, and has founded the Section of Breast Imaging in 1996. Since 1996 is president of the Section of Breast Imaging of Slovak radiologic Society and vice president of the Slovak Society of Ultrasound in Medicine. Membership in organizations: ECR, EUSOBI, EFSUMB, SSUM (Slovak Society of Ultrasound in Medicine) and SRS (Slovak Radiology Society).



5th world

Heart Congress

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HYBRID EVENT

SPEAKER PRESENTATIONS

DAY 1



Jordi Desola, MD, PhD

¹Professor AQU of Medicine, University Lecturer of Diving and Hyperbaric Medicine

²Medical Specialities on Internal Medicine, on Occupational Medicine, and on Sports Medicine

³Permanent Member of the Executive Board of the European Committee for Hyperbaric Medicine (ECHM)

⁴Spanish Delegate in the COST-B14 project of the EC programme for Cooperation on Science and Technology of the European Commission Chairman of CRIS-UTH, Barcelona

Hyperbaric Oxygenation In Radiation-Oncology: Before, During, and After

It is widely known that neoplastic cells follow a strictly anaerobic metabolism (*Warburg*, Nobel Prize 1931). Their malignancy is linked to tissue hypoxia. Oxygen does not enhance neoplastic growth but diminishes tumour proliferation and metastatic diffusion. Irradiation of patients while receiving oxygen within monoplace hyperbaric chambers to enhance cancer sensitisation (*Davidson et al.*) was widely applied in the 1950s. However, it was discontinued due to technological problems, but not due to negative results. In the 1980s, hyperbaric oxygenation (HBO) for radiation oncology was reassumed for three scenarios:

1. BEFORE: Enhancing oncogenic cell radiation sensitivity (*Bennett 2005, Ma 2022*).
2. DURING: Prevention of radiation-induced injuries to surrounding normal tissues, furthermore making possible early surgery on irradiated tissues (*Marx 1983*).
3. AFTER: Healing of refractory radiation-induced injuries, mainly in maxillofacial areas, proctitis, cystitis, and vaginitis.

A European Consensus Congress was organised in 2001 jointly by the *European Society of Radiation Oncology and the European Committee for Hyperbaric Medicine*. Some randomised controlled studies have been performed, proving satisfactory results (*Annane 2004, Clarke 2008, Peterson 2024*). Cochrane Reviews were published in 2012 and 2018, concluding that "...there is some evidence that HBO improves local tumour control and mortality for cancers of the head and neck and uterine cervix". No kind of enhancement of malignancy has ever been observed. HBO has directly reduced the growth of neoplasms of different kinds (*Dische 1999; Granowitz 2005; Raa 2007 and 2013*) and has even proven a direct antioncogenic effect on Glioblastoma and other cancers (*Chang 1975, Koshi 2007, Buhler 2015, Chen 2025*).

Since 1941, more than 1600 papers related to HBO effects in radiation oncology have been produced. This is not a palliative but a definitive efficient therapy (*European Consensus Congress, Lille, France, 2014*). The current experience of CRIS-UTH in this field is over 4000 cases.



Wissam Ibrahim Khalife

The University of Texas Medical Branch, USA

Hypertrophic Cardiomyopathy: Is it Really a Rare Disease?

Hypertrophic cardiomyopathy (HCM) is a prevalent but frequently underdiagnosed genetic cardiac disorder, characterized by unexplained myocardial hypertrophy predominantly affecting the left ventricle. Its clinical presentation ranges from asymptomatic individuals to those with severe symptoms including syncope, arrhythmias, heart failure, and sudden cardiac death. Due to its heterogeneous nature and variable penetrance, many cases remain unrecognized until advanced stages or catastrophic events occur. Early detection and management are thus critical for reducing morbidity and mortality.

This presentation provides an overview of HCM, emphasizing the importance of systematic screening, accurate diagnosis, and tailored management strategies. Screening approaches will cover family history assessments, clinical examination, electrocardiography, and echocardiography as first-line tools, with cardiac magnetic resonance imaging (MRI) offering detailed myocardial characterization. Genetic testing for sarcomeric gene mutations is increasingly valuable, particularly in familial cases. Once diagnosed, management is guided by risk stratification for sudden cardiac death, symptom burden, and degree of left ventricular outflow tract obstruction. Treatment options include lifestyle modifications, pharmacologic therapy (e.g., beta-blockers, calcium channel blockers, disopyramide), septal reduction therapies (surgical myectomy or alcohol septal ablation), and implantable cardioverter-defibrillators (ICDs) in high-risk individuals. Emerging therapies targeting underlying pathophysiology, such as myosin inhibitors, are also under investigation.

By enhancing awareness of HCM's variable presentation and integrating current screening and management protocols, clinicians can significantly improve outcomes for affected individuals. This presentation aims to equip healthcare professionals with practical tools for early recognition and optimal care of patients with HCM.

Biography:

Educational background: Medical School in Lebanon, Internal Medicine Residence at the University of South Dakota, Cardiology Fellowship at UTMB and Heart Failure/Transplant Fellowship at Baylor College of Medicine/Texas Heart Institute.

Current positions/title: Professor of Medicine at UTMB, division of cardiovascular medicine, section head of the Heart Failure Program and the Director of the Cardiovascular Fellowship Program, director HCM Program.

Has been part of multiple national and international clinical trials (total 15) with multiple ongoing clinical projects and has >100 publications and >200 posters/oral presentations in national and international conferences.



Dr. Turki Awadh Y Alasmari PSCC, Dr. Khalid Naji PSCC, Dr. Hussein Alamri PSCC, Dr. Doaa Mohammed Alayed Psmmc

Prince Sultan Cardiac Center, Saudi Arabia

Hypertrophic Cardiomyopathy (HCM) with Bicuspid Aortic Valve and Severe Aortic Stenosis in a Young Patient with Positive Transthyretin (TTR) Gene Mutation

A 17-year-old male with a history of atopic dermatitis presented with no significant symptoms but was found to have severe left ventricular hypertrophy (LVH) and a bicuspid aortic valve (BAV) with severe aortic stenosis. Genetic testing revealed a positive transthyretin (TTR) gene mutation, which raised suspicion for hereditary cardiac involvement. This case highlights the diagnostic challenges in young patients with complex cardiovascular conditions and emphasizes the importance of genetic testing in patients with unexplained hypertrophy.

Introduction: Hypertrophic cardiomyopathy (HCM) is a common genetic disorder characterized by abnormal thickening of the myocardium, most often affecting the left ventricle. The condition may present with symptoms such as chest pain, dyspnea, and arrhythmias, or it may remain asymptomatic, as seen in many young patients. HCM is frequently caused by mutations in genes encoding sarcomeric proteins, but its clinical expression can vary widely, ranging from mild asymptomatic forms to severe disease with heart failure and sudden cardiac death. Hypertrophic cardiomyopathy (HCM) is the most common inherited cardiomyopathy, with a prevalence of 1:200 to 1:500, that requires a nuanced approach for diagnosis, combining clinical evaluation, cardiac imaging, and often genetic testing.' Most genetic causes of HCM are due to changes in sarcomeric genes, particularly cardiac myosin binding protein C (MYBPC3) and myosin heavy chain (MYH7). HCM is a diagnosis of exclusion and must be differentiated from other cardiomyopathies with left ventricular (LV) hypertrophy such as hypertensive heart disease, valvular disease, trans-thyretin (TTR) cardiac amyloidosis (ATTR-CA), and storage diseases.(1)

Bicuspid aortic valve (BAV) is one of the most common congenital cardiovascular anomalies and is often associated with aortic stenosis (AS) and aortic dilation. The combination of HCM with BAV and AS can complicate the diagnosis, as both conditions lead to left ventricular hypertrophy (LVH).

Transthyretin (TTR) gene mutations are known to cause a variety of clinical manifestations, most notably amyloidosis. However, in the absence of overt amyloid deposition, a positive TTR mutation may indicate a genetic predisposition to cardiac involvement. The clinical implications of a TTR mutation in the context of HCM and BAV remain underexplored, particularly in young patients with no clear signs of amyloidosis. (2)

This case presents a 17-year-old male with HCM, BAV, severe aortic stenosis, and a positive TTR gene mutation, and discusses the diagnostic and management challenges associated with such a complex presentation.

Biography:

He is a cardiologist currently serving at the Prince Sultan Cardiac Center in Riyadh, Saudi Arabia



Karen A Cabiloque

University of San Agustin, Philippines

Cancer and Stem Cell Therapy

Cancer-a leading cause of death in all countries and an increasing medical burden worldwide due to aging and population growth. It is mainly treated using invasive treatment such as surgical resection, fractionated radiotherapy and chemotherapy. However, treatment related side effects, off target effects and drug resistance limit the efficacy of such therapeutic options; hence recurrence is extremely likely. On the other hand, therapies employing stem cells are showing increasing promise in the treatment of cancer. Stem cell can function as novel delivery platforms by homing and targeting both primary and metastatic tumor. Moreover, stem cells can be applied in regenerative medicine, immunotherapy and drug screening applications. Therefore, this presentation focuses on recent progress toward stem cell-based cancer treatments and aims to summarize treatment advantages and opportunities, and shortcomings and looking forward to potentially refine future trials and facilitate the shift from experimental to clinical studies.

Keywords: Stem Cell, Targeted Cancer Therapy, Regenerative Medicine, Chemotherapy, Surgical Resection, Fractionated Radiotherapy.

Biography:

Karen A Cabiloque, She is a Stem Cell Specialist, a Luminare Awardee 2021 as the Most Successful Aesthetic Doctor of the Year, Hall of Fame Awardee as Filipino Achiever on Stem Cell and International Medicine 2022. Postgraduate Student of Harvard Medical School Global Health, Master in Quality and Safety. Covid 19 Research Participant Harvard Medical School, Stem Cell and Healthcare Advocate, Fellow of Royal Institute of Singapore, Phenomenal Speaker of World Cancer Society 2019-2025, Research Participant and Speaker of MAIWP UCMI, Malaysia, PRISAL Pharmaceutical Awardee for Research on Stem Cell and Cancer Treatment, Kuala Lumpur, Awarded with ASEA International Award as Lifetime Achiever for Healthcare, India under World Research Congress, Bugal/Pride Awardee as Alumni for University of San Agustin. Doctorate on Global Healthcare Management, University of Thames, France.



John Carlo L. Tuazon, MD*; Areefah A. Adiong-Alonto, MD

Division of Internal Medicine, National Kidney and Transplant Institute, Quezon City, Philippines

Validation of the Padua Prediction Score in Predicting Venous Thromboembolism Among Patients with Chronic Kidney Disease Admitted to the Intensive Care Unit: A Retrospective Cohort Study

Chronic kidney disease (CKD) is associated with a hypercoagulable state that increases the risk of venous thromboembolism (VTE), particularly in critically ill patients in the intensive care unit (ICU). Despite pharmacologic thromboprophylaxis, VTE events still occur due to immobility, central venous catheters, and underlying comorbidities. The Padua Prediction Score (PPS), a validated risk stratification model for medical inpatients, integrates demographic and clinical factors to predict VTE risk but has not been fully validated in ICU-admitted CKD patients.

This retrospective cohort study was conducted at the ICU of the National Kidney and Transplant Institute from January 2019 to May 2024. Adult CKD patients admitted to the ICU who underwent diagnostic work-up for VTE using lower extremity venous duplex ultrasound and/or chest CT angiography were included. Patients were categorized into high-risk (PPS ≥ 4) and low-risk (PPS < 4) groups.

Among 219 eligible patients, the cumulative incidence of VTE was 2.3%. The incidence was 3.9% in the high-risk group and 1.4% in the low-risk group. PPS showed a sensitivity of 60.0% and specificity of 65.0%, with a positive predictive value of 3.9% and negative predictive value of 98.6%.

While the overall diagnostic performance of PPS in this cohort was limited, its high negative predictive value suggests potential clinical utility in identifying CKD ICU patients at low risk for VTE. However, its low positive predictive value and moderate sensitivity/specificity limit its ability to guide thromboprophylaxis decisions in high-risk individuals. These findings support the need for larger, multicenter validation studies to optimize VTE risk prediction in this vulnerable population.

Biography:

John Carlo L. Tuazon completed his Doctor of Medicine degree at the age of 25 from Far Eastern University – Nicanor Reyes Medical Foundation, Quezon City, Philippines and residency training in Internal Medicine from National Kidney and Transplant Institute, Quezon City, Philippines.



Slobodnikova Jana

¹Alexander Dubček University of Trenčín, Faculty of the Health care, Slovakia

²Clinic of Radiology, Trenčín, Slovakia

The Prevention and Early Diagnosis of Breast Cancer of Young Women in The Region of Trenčín – Retrospective Study

Background: Breast cancer is the most common malignant disease in women. It also affects young women, women between 15-40-50 years of age. Its occurrence in Europe corresponds to the global average, including Slovakia. Early diagnosis of this disease is problematic as there is no screening for lower age groups of women. The research of women with histologically proven breast cancer carried out at the Radiology Clinic, s.r.o., was aimed at comparing the proliferation index in individual age groups of women with breast cancer, to verify the importance of self-examination and to define the incidence of cancer in young women in Trenčín region.

Material and methods: In the time period from 2005 to 2017, a total of 185 000 women were examined at our department, of which 370 women were positively diagnosed. Of these, 97 were below the age of 50. Ultrasound (USG), mammography (MG) and magnetic resonance imaging (MR) were used for mammography. They examined the palpation of the lesion, the result of biopsy examination, carcinoma grading, proliferation index, the presence of genetic changes - HER2, BRCA, family history and the size of the lesion. The non-parametric Kruskal-Wallis test was used to compare the numerical data.

Results and discussion: We divided the patients according to age into five groups. Group A consisted of women under the age of 30 ($n = 6$), in Group B women were 31-35 years ($n = 8$) old, and in Group C women were 36-40 years ($n = 28$) old, group D consisted of women aged 41-45 years ($n = 32$) and the last group E included patients aged 46-50 years ($n = 23$). The number of newly diagnosed cancers in young women in our sample corresponds to the incidence of newly diagnosed cancers worldwide, of the total number of newly diagnosed cancers it represents 4-8%. In our sample it was 6% of the total number of newly diagnosed and histologically verified breast carcinomas. In terms of proliferation activity, the result of the non-parametric test did not reach the formal limit of the numerical p-value of 0.05, which is necessary to reject the presumption of agreement between age groups, but is relatively close to this value (Kruskal-Wallis test; $p = 0.07$). In other words, if we achieved e.g. result with a p-value of the test criterion $p = 0.70$, this would clearly indicate the favor of the mutual consistency of the sets in the size of the proliferation index. In this case, however, the p-value of the test criterion is located in the so-called zone of a marginal level of significance ($0.05 < p < 0.10$), in which we cannot afford such a simple conclusion. Mean values (arithmetic mean and median) had higher values in the first two age groups than in the remaining three: under 30 years ($x_m = 28.3$, $x_m = 25$), 31-35 years ($x_m = 44.4$, $x_m = 50$), 36-40 years ($x_m = 22.6$, $x_m = 10$), 41-45 years ($x_m = 19.3$, $x_m = 10$), 46-50 years ($x_m = 24.8$, $x_m = 15$) In other words, the proliferation index appears to be somewhat higher in the age groups under 35 than in the older age groups. However, the statistical test

used did not assess this as statistically significant for the lower number of patients in the first two groups ($n = 6$; $n = 8$, respectively). It can be assumed that if the proliferation index is indeed higher in the younger organism, with the increase in the number of patients examined in these age groups, we can really expect statistically significant differences compared to the higher age groups. This supports the emphasis on the prevention and early diagnosis of breast cancer in younger age groups of women.

Conclusion: The results of our study suggest that the issue of prevention and early diagnosis of breast cancer in women in lower age ranges is also important in view of the natural physiological characteristics of the body of a woman of lower age. For early diagnosis, however, it is necessary to work with women of all ages, to work with models for teaching and practical demonstration of breast examinations.

Key words: Breast Carcinoma, Young Women, Prevention

Biography:

Jana Slobodníková, M.D., CSc, Ass. Prof. - born in 1961 in Czech republic, graduated on Charles University in Prague, Faculty of Medicine, specialization of Radiology I and II. Gr. Post-doc graduated – CSc. (PhD) completed at the age 38 years at the Institute of Experimental Oncology, Slovak Academy of Sciences. Ass. Prof. in 43 years from Tyrnaviensis University, hosting professor at age 45 from St. Elizabeth High School in Bratislava. From jun she is Magister of the Public Healths. She has been teaching at several universities in Prague, Trenčín, Trnava and Bratislava.

She worked for 8 years as a head of the Radiology Clinic of the St. Elizabeth Oncology Institute in Bratislava, and now she is also head of the Department of Laboratory Testing Methods in Health Care and Public Health of Faculty of the Health Care on Alexander Dubček University of Trenčín, 16 years head of Clinic of Radiology in Trenčín. She is author of teaching text, university textbooks, lead workshops, she organized international congresses and workshops.

She has published more than 90 scientific papers, from then 25 papers in renowned journals and has been active as editorial board member of repute in 5 scientific periodicals. She has published 3 monographies, and has founded the Section of Breast Imaging in 1996. Since 1996 is president of the Section of Breast Imaging of Slovak radiologic Society and vice president of the Slovak Society of Ultrasound in Medicine. Membership in organizations: ECR, EUSOBI, EFSUMB, SSUM (Slovak Society of Ultrasound in Medicine) and SRS (Slovak Radiology Society).



Amal Albatini*, Fatmah Alshammari, Zahraa Alsayegh, Noura Almutairi, Shouq Alotaibi, Gayathri Gorantla

Ministry of health, Shuwaikh, Kuwait

Effects Of Hospital-based Rehabilitation on Functional Capacity of Heart Failure Patients

Introduction: Heart failure (HF) is a progressive condition impacts not only cardiac function but also respiratory, vascular and skeletal systems. Patients often endure shortness of breath (SOB) at rest or during exertion, coupled with fatigue, resulting in a significant reduction in functional and exercise capacity. This impairment affects their ability to carry out daily activities and decrease their overall health related quality of life (QOL).

Purpose: This study aims to test the effectiveness of a hospital-based cardiac rehabilitation on functional capacity of heart failure patients. Design: Pre-post intervention experimental design

Methods: Thirteen HF patients underwent 18 weeks of hospital-based cardiac rehabilitation program (CR). The CR program consisted of aerobic, strengthening, and respiratory muscle training. Functional and exercise capacity were measured pre and post CR using New York Heart Association Classification (NYHA), distance covered in 6-minute walk test (6MWT), rate of perceived exertion using Borg scale, and metabolic equivalent (METs). The analysis was conducted using dependent t test to evaluate pre-post outcome measures.

Results: Thirteen participants completed 18 weeks of hospital-based CR program. The dependent ttest for NYHA revealed that there was a significant improvement after 18 weeks, $t(12) = 6.743$, $p < 0.001$. The functional capacity measured by the distance covered in 6MWT was improved significantly after 18 weeks $t(12) = -6.391$, $p < 0.001$ along with METs $t(12) = -5.903$, $p < 0.001$ and Borg scale $t(12) = 12.282$, $p < 0.001$.

Conclusions: This study showed that hospital-based cardiac rehabilitation can alleviate symptoms and improve functional capacity of heart failure patients. A longitudinal study is recommended to test whether these improvements will be maintained overtime.

Biography:

Dr. Amal Albatini, Coordinator of the cardiac rehabilitation center in the chest diseases hospital - Ministry of health. Head of physical therapy department - chest diseases hospital. Awarded bachelor degree in physical therapy from Kuwait University - 2008. Awarded master of science degree in physiotherapy from Brighton University - United Kingdom. Awarded PhD degree in health sciences and cardiac rehabilitation from Swansea University - United Kingdom. A certified cardiac rehabilitation professional from the American association of cardiovascular and pulmonary rehabilitation. Please note that there is a possibility for a one-day workshop for cardiac rehabilitation for Heart failure patients

Dr. Fernando*, P. Guerlloy-CIPREC, Dr. César J. Zaidman-CIPREC

CIPREC, Argentina

Assessment of Metrics in a Research Center by Comparing Resource Utilization Before and After the Incorporation of a Digital Protocol Management System**1. Hypothesis**

The implementation of a digital protocol management system in a research center improves metrics, optimizes resource utilization, minimizes costs, enhances data quality, accelerates query resolution, facilitates data transmission to the sponsor, and supports the oversight of the Principal Investigator.

2. Objective

To demonstrate the improvement of various indices that reflect the performance of a research center after the implementation of a digital protocol management system.

3. Materials and Methods

In a research center with 19 years of experience, metrics were compared over a

4-year period from November 2020 to October 2024, divided into two periods. Until October 2022 (Period A), data collection was done using paper clinical records, and all protocol management from the center was manual and utilized standard resources. From November 2022 (Period B), the Brainmart MED CT protocol management system was implemented, which, among other functionalities, includes digital clinical records, adverse event management, visit window scheduling, inventory of pharmacy and laboratory kits, a system for creating comments/queries, and an alert system for responses, as well as user creation through credentials. The center's performance was measured by the number of monthly visits per resource (investigator, study coordinator, pharmacy staff, laboratory staff), data loading time, number of queries generated, and response time for queries in both periods. The economic balance of the center and monitoring resource costs for the sponsor were also compared.

4. Statistical Analysis

Continuous variables are summarized as mean (SD) or median [IQR] based on their distribution. Categorical variables are summarized as n (%). Comparisons between periods were conducted using Welch's test, Wilcoxon test, or Fisher's test, depending on the nature of the variable and the assumptions of the tests. All test assumptions were checked and met. An alpha level of 0.05 was considered. Analyses were performed using R [R Core Team (2022). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria] and RStudio [RStudio Team (2023). RStudio: Integrated Development Environment for R. RStudio, PBC, Boston, MA URL <https://posit.co/>].

5.Results

The number of visits, data loading time for visits in the Case Report Form (CRF) in days, the number of queries, and the response time for queries in days were

compared during two periods: Period A (from November 2020 to October 2022 inclusive) and Period B (from November 2022 to October 2024 inclusive). The difference between these periods was the utilization of Brainmart MED CT during Period B. The variables are summarized in Table 1.

Table1

Variable (1)	Period A (2)	Period B (3)	p-value
Monthly visit rate	193 [189, 207]	445 [445, 516]	<0.001
Data loading time (days)	7.00 [7.00, 7.25]	1.00 [1.00, 2.00]	<0.001
Monthly query rate	93.04 [88.58, 97.70]	39.00 [39.00, 43.70]	<0.001
Query response time (days)	7.00 [7.00, 7.00]	2.00 [2.00, 2.25]	<0.001

1. Continuous variables are summarized as mean (SD) or median [IQR] according to their distribution. Categorical variables are summarized as n (%).
2. November 2020 to October 2022 inclusive.
3. November 2022 to October 2024 inclusive.

In Period A, the monthly visit rate was 193 [189, 207], increasing to 445 [445, 516] in Period B (Fisher's test, p-value <0.001, see Figure 1). The median data loading time for visits in the eCRF was 7 days [7.00, 7.25] in Period A, decreasing to 1 day [1.00, 2.00] in Period B (Wilcoxon-Mann-Whitney test, p-value <0.001, see Figure 2). The monthly query rate also decreased, from 93 [88.58, 97.70] to 39 [39.00, 43.70] (Fisher's test, p-value <0.001, see Figure

Figure 1

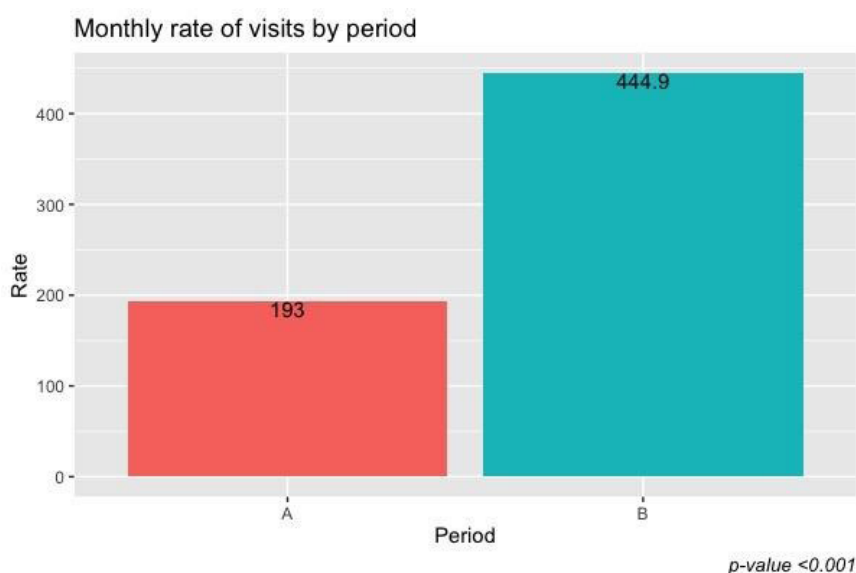


Figure 2

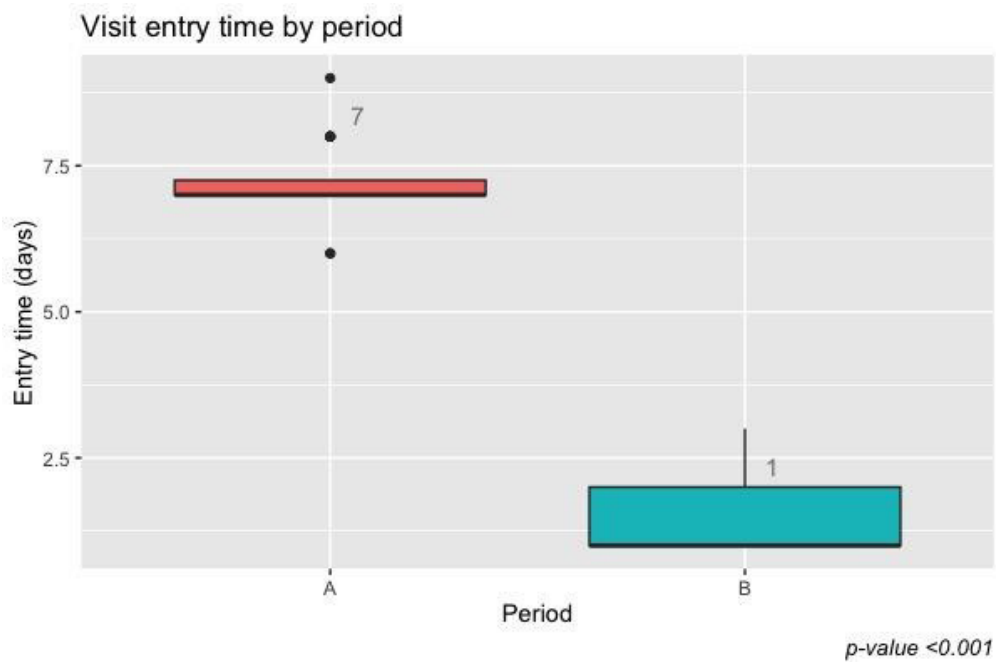


Figure 3

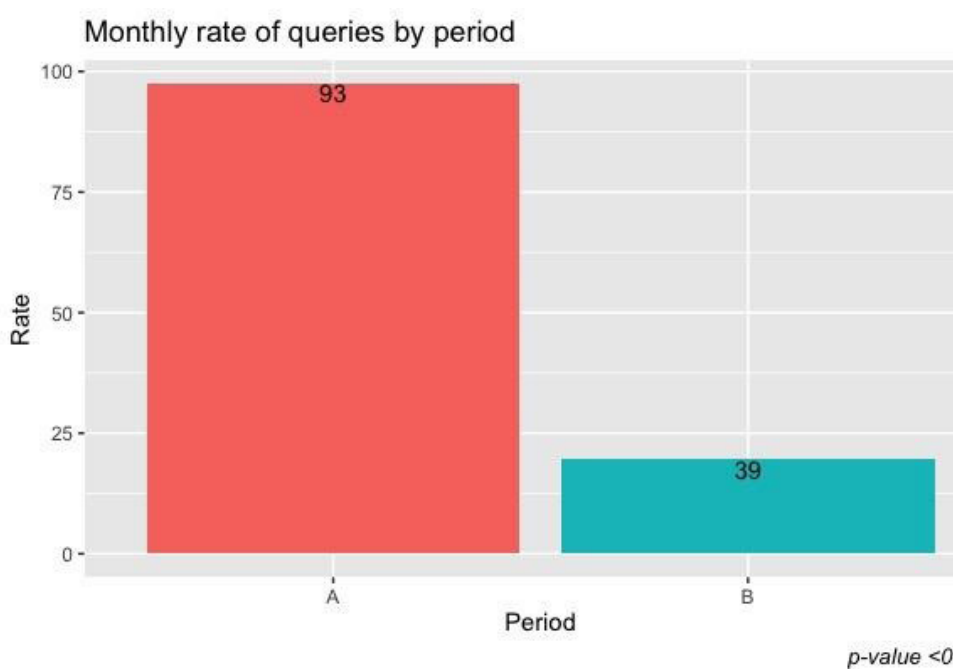
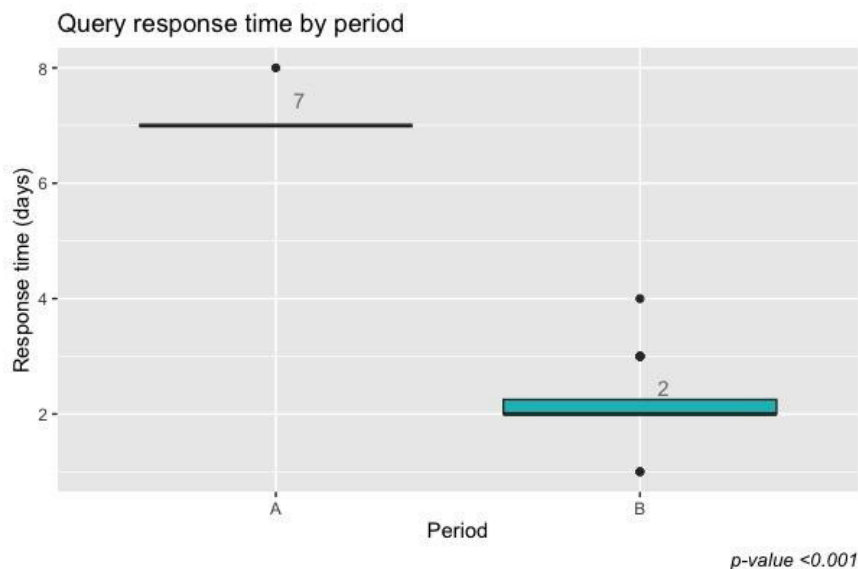


Figure 4



6- Conclusions

The implementation of a digital protocol management system in an experienced research center improved performance in terms of recruitment potential, resource optimization, and improvement of metrics. There was also a substantial improvement in the production of the research center, without significant variation in the number of staff. The costs estimated in the monitoring plan by the sponsor should be recalculated downwards taking into account the greater speed in verification and control of data. The quality of the data was optimized, based on medical records, with the possibility of management and audit trail. The digital management system allowed the comprehensive improvement of all the processes of the center, from patient selection, scheduling visits, communication of events, data registration, and verification of the same.

All this allows the principal investigator to improve his oversight on each protocol he conducts and saves costs for the center and the sponsor.

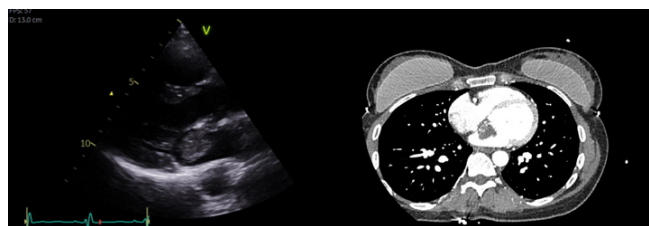


Mandeep Singh*, John Habashi, Tanvir Hassan, Dr. Anil Agarwal

Princess Alexandra Hospital NHS Trust, Harlow, UK

Left Atrial Myxoma Presenting as Multiple Embolic Strokes in a Young Female: Case Report

Background: Cardiac myxomas are rare benign tumors that can present with neurological complications due to embolic phenomena. **Case:** A 42-year-old woman presented with complaints of sudden-onset slurred speech and transient right-sided weakness which lasted for 2 hours and partially resolved whilst she was on her way to hospital. However, the patient did not feel that the speech had returned to her baseline and hence, an initial CT brain and CT angiography were done which were normal. The stroke team advised to start her on aspirin 300 mg and do MRI. MRI brain revealed multiple small infarcts consistent with embolic strokes. This was followed by a transthoracic echocardiography which identified a large left atrial myxoma as the embolic source. The patient was discussed with a cardiology tertiary care center where she underwent surgical excision of the left atrial myxoma. Postoperative recovery was uneventful and she remains asymptomatic with sinus rhythm at follow-up. **Discussion:** Left atrial myxomas can mimic embolic stroke at the time of presentation. Echocardiography is the diagnostic modality of choice. Surgical resection offers an excellent prognosis with low recurrence. This case reinforces the role of multidisciplinary management among neurology, cardiology and cardiothoracic teams. **Conclusion:** Early echocardiographic screening in unexplained embolic strokes can reveal cardiac myxomas, preventing recurrent or fatal embolic events through timely surgical management.



US ECHO showing 30 mm filling defect in the anterior wall of the left atrium myxoma. CT imaging shows mass in axial slice

Biography:

Dr. Mandeep Singh GMC-registered clinician and MSc graduate in Neuroscience and Translational Medicine from Queen Mary University of London, is currently working as an ST1 Doctor in General Medicine at The Princess Alexandra Hospital, Harlow. His academic distinction includes a research project at the Royal London Hospital investigating cognitive and auditory dysfunction in Parkinson's disease. He has prior clinical experience as a Medical Officer at ECHS Polyclinic, Palampur, and as a Junior Resident in Neurology at Dr. Rajendra Prasad Government Medical College, India. Dr. Singh has attended several international conferences, including ISCOMS (2019, 2022) and the Royal College of Surgeons' ICHMS (2022). His research interests focus on neurovascular disorders, stroke, and translational neuroscience. A passionate educator, he also tutors undergraduate neuroscience students.

Dr. Eugene Zadorin

Spain

NK Cell Therapy: A New Era of “Off-the-Shelf” Cellular Immunotherapy for Cancer

Introduction: Cellular immunotherapy, exemplified by CAR-T, has revolutionized cancer treatment, but faces limitations in solid tumors due to toxicity, cost, and logistics.

Natural Killer (NK) cells, key components of the innate immune system, offer a promising, scalable alternative. Their inherent ability to kill cancer cells without prior sensitization and their low risk of Graft-versus-Host Disease (GvHD) make them ideal for “off-the-shelf” allogeneic therapies.

Goals & Methods: This presentation reviews recent advances in NK cell therapy. We will discuss core strategies to enhance their anti-tumor activity, including adoptive transfer, genetic modification (e.g., CAR-NK cells), and methods to overcome the immunosuppressive tumor microenvironment (TME). We will present the latest clinical data showing encouraging safety and preliminary efficacy in both hematologic and solid malignancies.

Conclusion: NK cell therapy is rapidly emerging as a potent, safe, and highly scalable pillar of cellular immunotherapy. Continued efforts to improve in vivo persistence and homing are crucial to fully realize the potential of NK cells as the next wave of cancer cell therapy.



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VIRTUAL KEYNOTE PRESENTATIONS

DAY 2



Mohamed M Hosni, MD, MRCOG, MSc, MB.BCh

Consultant Obstetrician Gynaecologist, Imperial College Healthcare NHS Trust,
London, United Kingdom

Role of Endometrial Ablation in Women with Precancerous Uterine Lesions. The Other Side of The Story

Endometrial ablation (EA) has become one of the most commonly performed gynaecologic procedures in the developed and developing countries. Global endometrial ablation (GEA) devices have supplanted resectoscopic ablation, primarily because they have brought with them technical simplicity and unprecedented safety. These devices are typically used to treat dysfunctional uterine bleeding (DUB) in premenopausal women. However, there is a widespread concern about the effect of ablation on the incidence and development of endometrial cancer in such population, and whether such ablative techniques introduce a masking effect resulting in delayed diagnosis of endometrial cancer or does it provide a protective effect against it?

Biography:

Mr Mohamed Hosni is a Consultant Obstetrician and Gynaecologist at Imperial College Hospitals in London, with over 25 years of experience. He is a very experienced laparoscopic surgeon, with international reputation in minimal access surgery and endometriosis. He has a broad clinical research background and has collaborated with numerous doctors and scientists on different projects in Obstetric and Gynaecologic research. He has presented both Nationally and Internationally, have several peer-reviewed publications in scientific journals. He completed MD, MSc, and he is currently a member of the Royal College of Obstetricians and Gynaecologists. He is a firm believer in a patient-centred approach, personalized on an individual basis. He is entirely dedicated to his profession. He places a significant importance on taking time to listen to each patients' specific needs and providing them with a thorough explanation of their treatment options.

Ajmal Zadran*, Benyamin Alam, Amir Reza Akbari, Ahmed Ageed, Ryan Duffy

Queen Elizabeth Hospital Birmingham, United Kingdom

A Review and Comparison of Immune-Checkpoint Inhibitors in The Treatment of Metastatic Uveal Melanoma

Metastatic uveal melanoma (mUM) is a rare and aggressive malignancy characterized by poor responsiveness to conventional chemotherapies, posing significant treatment challenges. Immune checkpoint inhibitor (ICI) therapies, including monotherapies with Ipilimumab, pembrolizumab, and nivolumab, as well as dual ICI therapy, have emerged as potential treatments. Whilst current research favours dual therapy against single therapy, comprehensive individualised comparisons of the efficacy and safety profiles of these therapies remain limited. This meta-analysis aims to evaluate the clinical outcomes of single ICI therapies individually and compare against combination therapy to guide optimal treatment Strategies for mUM.

A systematic literature review was conducted to identify studies reporting objective response rates (ORR), disease control rates (DCR), median progression-free survival (MPFS), and adverse event rates (AER) for Ipilimumab, pembrolizumab, nivolumab, and dual ICI therapy. Data were aggregated using forest plots and analyzed to compare the efficacy and safety of each regimen.

Dual ICI therapy demonstrated the highest ORR and DCR but showed no statistically significant advantage over monotherapies. Dual therapy had a lower MPFS than both pembrolizumab and nivolumab monotherapies. Furthermore, dual therapy was associated with a greater AER compared to any single therapy.

While dual ICI therapy offers improved ORR and DCR on aggregate analyses, monotherapies like pembrolizumab provide comparable outcomes in specific metrics, particularly MPFS, with significantly reduced toxicity. These findings underscore the need for personalized ICI regimens tailored to individual patient profiles rather than defaulting to dual therapy. Further research is essential to refine treatment and optimize outcomes for mUM patients.



Shaghayegh Kamian

Department of Radiation Oncology, Imam Hossien Hospital, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

Effect of Timing of Surgery and Chemotherapy After Initial Diagnosis for Early Breast Cancer on Survival

It is assumed that patients with early breast cancer might benefit from starting adjuvant chemotherapy soon after surgery, and this would have important clinical implications. There are different timelines in studies to introduce best time for starting chemotherapy. Some studies have found that timing less than 21 days had no impact on survival; while others have estimate that initiation of chemotherapy greater than 4 months after diagnosis was associated with poorer overall survival.

There are also some researches indicating delay in initial surgery more than 45 days might affect survival. We studied 93 breast cancers in our center and found that time interval of 60 days or longer between biopsy and surgery adversely impact overall survival. It should be noted that the presence of comorbidities and metastasis are likely to reduce overall survival.

By the use of neoadjuvant chemotherapy, this issue can be more questionable. The criteria for this approach are defined, but still there are debates in time of surgery in these cases.

Although there are studies for indicating the best approach for time of chemotherapy and surgery and effect of that on disease free survival and overall survival, we should treat cases regarding comorbidity and desire of patients.

Keywords: Breast neoplasm, Surgery, Chemotherapy, Survival.

Biography:

Shaghayegh Kamian has completed radiation oncology residency in 2006 from Tehran university of medical sciences. She worked in private hospitals for 6 years. She has worked as an associate professor in department of radiation oncology in Imam Hossein hospital, Shahid Beheshti University of Medical Sciences since 2012. She is the reviewer of international journals. She has studied 3 years of master degree in medical education. She has published more than 30 papers in the international journals.



Yamini Sudha Lakshmi

University of Madras, India

Targeted Nano-Medicine and 3D printing-Challenges and Strategies against Global Cancer

Nano-Medicines, the medical applications of nanotechnology, are promising candidates for targeted drug delivery. Novel targeted drug-delivery approaches using nanomedicines are changing the future of therapy. The nanomedicine field has devoted significant effort towards developing insight into the technological and biopharmaceutical advantages and disadvantages of different nanomedicine systems. Many different nanomedicines have been developed that improve the stability, solubility, pharmacokinetics/ biodistribution, toxicity, and/or efficacy of cytotoxics and other classes of payloads. Delivery system characteristics like size, charge, shape, type of surfacemodification, and biocompatibility have an important influence on the biodistribution and clearance of the nanomedicine. This industry perspective focusses on oncology-based nanomedicinal therapeutics only, as they receive about two-thirds of the research attention. The concept that nanomedicines aim to improve the therapeutic index of anticancer drugs by modifying their pharmacokinetics and tissue distribution to improve delivery to the site of action is well known. Anti-cancer nanomedicines in clinical development can be broadly divided into five main types: liposomes, polymeric conjugates, polymeric nanoparticles, polymeric micelles, and others.

3D Printing is an innovative technology which is used to construct the 3D model, layer by layer in the treatment of cancer. It uses a combination of biomaterials, bioactive additives or cells. It provides proper information of cancer tumours. Although human clinical studies to assess the efficacy and safety of nanomedicine agents have started to emerge, there are many challenges to address before further commercialization or widespread implementation and clinical acceptance can occur. These barriers include the need for long-term material/ therapeutic storage, the availability of substantial clinical trial funding, social and ethical issues, potential health and environmental impacts, regulatory requirements (e.g., manufacturing and controls, safety and toxicity validation, etc.), and a continually evolving intellectual property landscape. The use of 3D printing technology has found a better chance towards global cancer providing a new pathway for the treatment of cancer.

Key Words: Nano-Medicine, 3D Printing, Drug target, Anti-cancer activity

Biography:

Dr. S. Yamini Sudha Lakshmi has completed M.Sc in Biochemistry(1988), in Avinashi Lingam Home Science College, Coimbatore, M.Phil(1992), Ph.D(2003), PGDBI(2004) and CRA(Canada 2022). Has completed 38 years of teaching and research till date. Currently working in Department of Medical Biochemistry, University of Madras, Taramani Campus with the research related to Cancer Biology and nanopreparations, Synthesis and Formulation of potentised drugs and compounds. She has headed the Department of Biochemistry in various colleges and has served as Dean of Academics in an University of Madras Affiliated College. Also established the Department of Bioinformatics and Headed the Department. Served as Head of the Department of Basic Medical Sciences in Eritrea, College of Allied Health Sciences, Asmara, North East Africa. Has guided 27 M.Phil students and other project students of Biotech disciplines

of Engineering Colleges and currently Guiding the Ph.D research scholars. Visited Countries like France(2016), Germany(2016), Abhudhabi(2010), Srilanka(2012&2020), Dubai(2017&2023), Australia(2018) Singapore(2020), HongKong(2020) and Thailand(2022), Dubai(2023) and Turkey(2024) for delivering a talk as a keynote speaker as well as to conduct workshop. To her credit has published about 35 papers in national and international Journals. Has Organised first ever International Conference in the Dept of Medical Biochemistry, University of Madras Taramani Campus in the year 2018 since the department establishment (1968).She is also the life time member of various associations. She has been honoured with about 14 Awards till date from various Recognised bodies of the Nation.

She has also been honoured as the Vice Chancellor of World Tamil University, USA since 2022 till date. She is one amongst the Indian who has registered for the whole body donation to the welfare of students fraternity.

Hafiz Ali S. Rajput

Department of Urology, Royal Liverpool University Hospital, England

Association of Atrial Fibrillation with Patient Characteristics in Postoperative Coronary Artery Bypass Grafting Surgery

Background: Atrial fibrillation (AF) is a common complication following coronary artery bypass grafting (CABG) and is linked with increased morbidity and longer hospital stays. This study evaluated the association between patient characteristics and new-onset AF after CABG.

Methods: This longitudinal study was conducted at a tertiary care cardiology unit in Sindh, Pakistan, from October 2019 to November 2020. Adults aged 30–75 undergoing CABG were included, excluding those with prior AF or severe left ventricular dysfunction. Postoperative AF was diagnosed by ECG within seven days of surgery. Patient demographics and clinical data were collected and analyzed.

Results: Among 247 patients (mean age 63.4 ± 9.7 years), 9.7% developed new-onset AF postoperatively. Reduced left ventricular ejection fraction ($<35\%$) was significantly associated with AF occurrence (66.7% vs 43.95%; $p=0.033$). Age >65 years showed a higher AF incidence but was not statistically significant ($p>0.05$).

Conclusion: Postoperative AF occurs in a substantial proportion of CABG patients. Impaired ventricular function was a significant predictor. These findings underscore the importance of risk stratification and patient optimisation protocols to improve surgical outcomes.

Keywords: Atrial fibrillation, CABG, postoperative arrhythmia, left ventricular dysfunction, surgical outcomes

Biography:

I am a Core Surgical Trainee with Health Education England and have been working in the NHS for over three years. I have completed my MRCS, Basic Surgical Skills course, Advanced Life Support and Teach the Teachers course. My interests lie in improving surgical outcomes by focusing on patient optimisation and effective risk stratification. I have been involved in clinical research since medical school and am passionate about applying evidence-based approaches to enhance perioperative care across surgical specialties.

Shiny Beulah

University of Madras, India

IGY Antibodies for the Immunoprophylaxis in MicroRNA21 as a Biomarker Related to Breast Cancer and Heart Disease

IgY antibodies are being investigated as a novel immunoprophylactic tool targeting microRNA-21 (miR-21), a key biomarker associated with both breast cancer and heart disease. MiR-21 is significantly overexpressed in breast cancer, especially in invasive and triple-negative subtypes, and its elevated levels are linked to tumor growth, recurrence, and poor prognosis. In heart disease, miR-21 modulates cardiac remodeling and fibrosis, impacting outcomes after cardiac injury and serving as a useful biomarker for diagnosis and risk prediction. Literature reveals that meta-analyses support miR-21's high sensitivity and specificity for early cancer detection, while also emerging as a prognostic marker for chemotherapy-induced cardiotoxicity in breast cancer patients, offering possibilities for improved cardiovascular risk management. The unique specificity and stability of IgY antibodies allow targeted neutralization of miR-21 or its related protein pathways, which may enhance early disease prevention and management. However, the clinical application of IgY-based strategies in these settings requires further validation through large-scale trials to confirm efficacy and safety. Integrating IgY immunoprophylaxis with miR-21 biomarker assessment could transform diagnostic and preventive paradigms for breast cancer and heart disease.

Keywords: IGY antibodies, Immunoprophylaxis, miR-21, Breast cancer, Cardiac disease.



R. Prabhu

The Tamilnadu Dr. M.G.R Medical University, Chennai, India

Crypto-Transethosomal Gel Technology: A Novel Approach For Topical Melanoma Treatment Using Mequinol With Glutathione-S-Transferase Inhibitor

Melanoma is a highly aggressive and treatment-resistant form of skin cancer, characterized by uncontrolled proliferation of melanocytes and strong resistance to conventional therapies. Localized drug delivery offers a promising strategy to achieve targeted therapeutic action while minimizing systemic exposure. In this study, Mequinol and Curcumin were co-formulated into a novel crypto-transethosomal gel to exploit their synergistic anti-melanogenic, antioxidant, and Glutathione S-transferase (GST) inhibitory properties. PEG adsorption on transethosomes was employed to impart enhanced deformability, stability, and penetration, while incorporation into a Carbopol 934 gel base improved viscosity, spreadability, and sustained release behavior.

Comprehensive preformulation studies confirmed drug identity, melting point, solubility, and UV λ_{max} (Mequinol: 290 nm; Curcumin: 425 nm) with good linearity. FTIR analysis verified drug-excipient compatibility. Nine formulations (F1–F9) were prepared and characterized. Formulation F6 was identified as the optimized system with a vesicle size of 976.4 ± 172.08 nm, PDI of 0.0270, and zeta potential of -0.6 mV. Entrapment efficiency was 85.95 % for Mequinol and 86.39 % for Curcumin. Microscopy and SEM revealed spherical, discrete vesicles with smooth surfaces.

Physicochemical evaluation of the gels confirmed suitable viscosity, skin-compatible pH (4.8–5.7), excellent spreadability, and drug content (90–108 %). In vitro drug release studies showed sustained release up to 6 h with cumulative release of 92.22 % (Mequinol) and 92.85 % (Curcumin), fitting Higuchi kinetics ($R^2 > 0.96$) and showing anomalous transport for Curcumin at higher lecithin concentrations. Drug permeation studies revealed flux values of $1109 \mu\text{g}/\text{cm}^2/\text{h}$ for Mequinol and $116 \mu\text{g}/\text{cm}^2/\text{h}$ for Curcumin. Cytotoxicity studies on A375 melanoma cells showed dose-dependent inhibition with an IC_{50} of $43.49 \mu\text{M}$. In vivo dermal irritation and skin absorption studies in albino rats confirmed rapid absorption within 10 minutes and no erythema or edema over 72 hours. The developed Mequinol–Curcumin Crypto-transethosomal gel provides a stable, non-irritant, and effective platform for topical melanoma therapy. Its enhanced penetration, sustained release, and synergistic activity highlight its potential as a promising non-invasive strategy for the management of melanoma.

Keywords: Mequinol, Curcumin, Crypto-transethosomes, Targeted drug delivery, Melanoma, Glutathione S-transferase inhibition, Synergistic therapy.

V. Monisha

University of Madras, India

Regulation of MiRNAs, Prognostic Biomarkers and Therapeutic Targets in Osteosarcoma using Cans Forte – A Herbal Formulation

Osteosarcoma is a highly aggressive primary bone malignancy with poor prognosis, particularly in adolescents and young adults. Despite advances in surgery and chemotherapy, relapse and metastasis remain major challenges due to chemoresistance and molecular heterogeneity (Kansara et al., 2022). Emerging evidence highlights the role of microRNAs (miRNAs) in tumor initiation, progression, and therapeutic resistance, positioning them as promising biomarkers and therapeutic targets (Wang et al., 2025; Zhang & Chen, 2024).

This review explores the potential of *Cans Forte*, a standardized polyherbal formulation, in modulating osteosarcoma-associated miRNAs and related signaling pathways. Phytochemicals present in *Cans Forte*, including flavonoids, fatty acids, and alkaloids, have demonstrated anticancer potential through apoptosis induction, inhibition of metastasis, and suppression of oncogenic pathways such as PI3K/Akt, MAPK, and Wnt/ β -catenin (Prasanna & Venkatesan, 2023; Shen et al., 2023). The interplay between these phytoconstituents and miRNA networks may regulate both oncogenic (miR-21, miR-221, miR-9) and tumor-suppressive (miR-34a, miR-143, miR-199a-3p) microRNAs, contributing to tumor suppression and improved therapeutic response (Li & Huang, 2024).

Through a comprehensive synthesis of *in silico*, *in vitro*, and *in vivo* studies, this review aims to elucidate the mechanistic relationship between *Cans Forte* bioactives and osteosarcoma-specific miRNA regulation. The study emphasizes the potential of *Cans Forte* as an adjuvant or complementary herbal therapeutic, paving the way for the development of miRNA-based diagnostic biomarkers and novel integrative cancer treatments.

Keywords: Osteosarcoma, MicroRNAs, Cans Forte, Herbal formulation, Prognostic biomarkers, Integrative oncology, Molecular pathways.



Abdullah Alseraye

King Saud bin Abdulaziz University for Health Sciences, Saudi Arabia

Analysis of Pattern and Prognostic Factors of Non-Hodgkin Lymphoma from A Tertiary Care Hospital in Saudi Arabia

Background: Non-Hodgkin lymphoma is one of the most common cancers worldwide and ranks as the third most common in Saudi Arabia. Although the incidence rate is relatively low compared to global data, the disproportionately high mortality rate highlights the need for local studies addressing the disease characteristics and prognostic factors.

Methods: This is a cross-sectional retrospective study conducted at King Abdulaziz Medical City (KAMC) and King Abdullah Specialized Children's Hospital (KASCH) in Riyadh. Data from 252 patients diagnosed with NHL between 2012 and 2022 were reviewed and collected from electronic medical records. The variables included patients' demographics, disease stage, laboratory parameters, histopathological features, and survival outcomes. Statistical analyses were performed using SPSS version 25. Survival outcomes were analyzed using Kaplan-Meier curves, and differences between groups were evaluated using log-rank tests. A P-value of ≤ 0.05 was considered statistically significant.

Results: The average age at diagnosis was (53 ± 19) years, with a slightly higher male gender predominance (53%). Diffuse large B-Cell Lymphoma (DLBCL) accounted for 71% of the cases, making it the most common type. Followed by Follicular NHL (FNHL), which accounted for 13.5% of the cases. Almost half of the patients (48.8%) presented at stage IV, which was associated with poor survival ($p < 0.0001$). Bone marrow involvement was found in (28.6%) of the patients, and was associated with shorter survival compared to patients who did not have bone marrow involvement ($p = 0.002$). Laboratory parameters such as low albumin and increased lactate dehydrogenase (LDH) were linked with worse prognosis. Although younger age groups had longer survival than older patients, the differences did not achieve statistical significance.

Conclusion: This study provides valuable data on NHL patterns and prognosis, highlighting the critical role of early detection and the value of simple laboratory markers in optimizing treatment decisions and improving patient outcomes.

Biography:

Abdullah S Alseraye is a senior medical student at King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), Riyadh, Saudi Arabia. His research interests span hematological malignancies, with a particular focus on Non-Hodgkin Lymphoma, as well as dermatology. He is presenting his first research study on NHL patterns and prognostic factors.

V. Yavanika

University of Madras, India

An Overview on Therapeutic Potential of PHF in the management of Colorectal Cancer. Mechanistic insights and Future Direction

Colorectal cancer (CRC) remains a leading cause of cancer-related morbidity and mortality worldwide, with limited efficacy and significant toxicity associated with conventional chemotherapeutics. The growing interest in complementary and integrative oncology has led to the exploration of polyherbal formulations (PHFs) which are combinations of bioactive plant extracts designed to exert synergistic, multi-targeted effects against cancer hallmarks. This review synthesizes recent advances in understanding the therapeutic potential of PHFs in CRC prevention and management. Emerging preclinical and clinical evidence indicates that PHFs can modulate critical signalling pathways, including Wnt/ β -catenin, NF- κ B, and PI3K/Akt, thereby suppressing proliferation, angiogenesis, and metastasis while promoting apoptosis and cell cycle arrest. Moreover, PHFs demonstrate potent antioxidant and anti-inflammatory activities, restore gut microbiota balance, and may enhance the efficacy and reduce the adverse effects of chemotherapeutic agents such as 5-fluorouracil. Advances in formulation technologies including nanoparticle and Phytosome-based delivery further improve bioavailability and therapeutic outcomes. Despite promising results, the translation of PHFs into standardized, evidence-based cancer therapies is hindered by variability in composition, lack of rigorous clinical validation, and regulatory challenges. Future research should focus on mechanistic elucidation, pharmacokinetic profiling, and randomized clinical trials to establish safety and efficacy benchmarks. Collectively, PHFs represent a promising, holistic adjunct or alternative strategy in colorectal cancer therapy, aligning traditional medicinal knowledge with modern molecular oncology.

Keywords: Polyherbal formulation, Colorectal cancer, Signalling pathways, Drug delivery.



**Dr. Adline Ben-Chioma E.^{1*}, Azike, C. A.²,
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Successful Management of Dilated Intrahepatic and Extrahepatic Ducts with Adenocarcinoma of the Pancreatic Head: A Case Report and Literature Review

More than 90% of cases of pancreatic cancer are adenocarcinomas, making them the most prevalent kind of the disease. This cancer develops in the pancreatic duct lining.

Adenocarcinoma may also arise from the cells that produce pancreatic enzymes. Abdominal pain, diarrhoea, nausea, weight loss and jaundice are features of adenocarcinoma. A rise in enzymes might cause joint discomfort and skin rashes in certain patients. Pancreatic head adenocarcinoma is a major cause of malignant biliary obstruction and frequently manifests as simultaneous intrahepatic and extrahepatic duct dilatation.

A 76-year-old male presented to the hospital with 3-days diarrhoea. Diagnosis showed tumour head of pancreas, leading to hepatobiliary obstruction, manifesting with pruritis, weight loss and loss of appetite. Initial CT scan, CA markers and other biochemical parameters were very abnormal. The patient initially received endoscopic stent placement and later surgery (Whipple's procedure) to remove the tumour. Histology showed grade 1A adenocarcinoma. 6-cycle of chemotherapy was done. During these therapies, the elevated markers gradually reduced with variations in some biochemical parameters. Recent CT scan showed no mass or calcification on the pancreas and no biliary dilatation.

Well differentiated adenocarcinoma of the pancreas can be treated when discovered early as poorly differentiated adenocarcinoma is very aggressive. Multidisciplinary individualized treatment is essential and should be utilized.

Keywords: Adenocarcinoma, Intrahepatic bile duct dilatation, Extrahepatic bile duct dilatation, Chemotherapy, Whipple's procedure.

Biography:

Dr. Adline Ben-Chioma is an associate professor with the Rivers State University in the Faculty of Medical Laboratory Science, Department of clinical Chemistry, with research interests in cancer studies, public health, nutrition and endocrinology. She is also a biosafety expert, with IFBA certification. She is involved in the training and strengthening of medical laboratories and medical laboratory users on biorisk management. Dr. Adline holds a Ph.D. in chemical pathology, master degree in public health from the University of South Wales, UK, and Master of Science in project management from European global school, France. She has over 60 publications in reputable journals.

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