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4TH INTERNATIONAL CONFERENCE ON **CANCER SCIENCE AND RADIOLOGY**

MARCH 15-16, 2023



CROWNE PLAZA DUBAI - DEIRA, UAE



ISBN-978-1-7393132-3-4

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Osaka Metropolitan University, Osaka, Japan

Functional conversion of Mcl-1 protein from pro-survival to pro-apoptotic by amino acid substitutions

Myeloid cell leukemia 1 (Mcl-1) gene was originally isolated as an immediate-early gene from the human myeloid leukemia cell line, ML-1 during phorbol ester-induced differentiation. Mcl-1 is a pro-survival Bcl-2 family protein, characterized by a short half-life due to the presence of PEST sequence. Kato et al. reported that Mcl-1 degradation proceeds with spontaneous apoptosis of human neutrophils, and cyclic adenosine monophosphate (cAMP) agonist stabilizes Mcl-1 and delays spontaneous neutrophil apoptosis (FEBS Lett. 2006). To elucidate the molecular mechanisms of Mcl-1 stabilization by cAMP agonist, an apoptosis induction system in the human embryonic kidney (HEK) 293 cells treated with tumor necrosis factor- α (TNF- α) and cycloheximide (CHX) was used. Treatment of HEK293 cells with TNF- α plus CHX induced apoptosis accompanied by degradation of Mcl-1, but not other pro-survival proteins, similar to spontaneous apoptosis of human neutrophils. A potent proteasome inhibitor, MG-132 suppressed TNF- α plus CHX-induced degradation of Mcl-1 in HEK293 cells, indicating proteasome-mediated degradation of Mcl-1. It has been shown that proteasomal degradation of Mcl-1 is regulated by phosphorylation and subsequent ubiquitination. Dibutyryl-cAMP (db-cAMP), an analog of cAMP that stimulates cAMP-dependent protein kinase (PKA), inhibited TNF- α plus CHX-induced degradation of Mcl-1 as well as apoptosis in HEK293 cells, suggesting the involvement of PKA. Four amino acid residues (S150, S159, S178, and T266) of the human Mcl-1 polypeptide were predicted to be phosphorylation sites for PKA by the NetPhosK server. Interestingly, transfection of a site-directed phosphorylation-deficient human Mcl-1 mutant/4A led to the detachment of HEK293 cells, indicating the induction of apoptosis. Mcl-1 overexpression has been reported in a variety of human tumors, including haematological and solid cancers. The human Mcl-1 mutant/4A is a potential cancer therapeutic gene.

Keywords: Apoptosis, Mcl-1, cAMP agonist, PKA, Phosphorylation, therapeutic gene

Biography:

Hisakazu Fujita, completed his doctorate in cancer biology at Hokkaido University in 1991. After his training as a post-doctorate at Rockefeller University, he started his career in the Laboratory of Molecular Genetics at Cancer Institute, Hokkaido University in 1992. In 2003, he moved to the National Cardiovascular Center Research Institute as the Chief of the Laboratory. In 2006, he joined the Department of Physiology at Osaka City University as the Senior Lecturer. In 2017, he moved to the Department of Scientific and Linguistic Fundamentals of Nursing, Osaka City University/Osaka Metropolitan University, Graduate School of Nursing as the Associate Professor.

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MAKSIM AFANASEV

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PDT Is the Sustainable Non Surgical Medical Method To Treat Acute HPV Infection, CIN and Invasive Cancer

The management of HPV-associated diseases such as cervical precancer and cancer is very difficult to approach, especially in case of young woman who wants to preserve her fertility. The most popular way of treatment was and unfortunately still is the surgical method. Conization of the cervix may have various kinds of disadvantage. According to the publications we studied in the Journal of Gynecological Oncology and Public Library of Science One, we came to the conclusion: depth and mass of removed tissues do not impact results of surgical treatment - unfortunately, CIN relapse still occurs after a surgery. HPV Recurrences return in 56% cases after LEEP and 62% cases after CKC.

Photodynamic therapy (PDT) is a therapeutical modality which offers a minimally invasive alternative for these diseases.

The results of research on the use of PDT in patients with CIN and early-stage cervical cancer. The complete response rate was 89,9% (692/770) at 3 months following treatment.

In the remaining 78 patients, only 33 did not respond to retreatment, the rest are healthy after second PDT course. Patients with HGSIL had a higher percentage of full recovery than patients with LGSIL after one PDT course. Therefore, the groups with HGSIL had better outcomes than the group with LGSIL.

PDT is an effective and minimally invasive treatment for cervical precancer and cancer, which also appears to eradicate HPV infection.

Keywords: photodynamic therapy, HPV, cervical intraepithelial neoplasia, cervical cancer.

Biography:

Maksim Afanasev, Gynecologic Oncology with over 20 years of experience. Since 2009, I have been working with clinical studies on non-melanoma skin cancer and HPV-related diseases (Acute HPV infection, LSIL, HSIL and early-stage cervical cancer) and work with photodynamic therapy. He have published over 240 scientific papers, two books and 15 book chapters

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DR. AIKATERINI FRAGOU PHD, MSC, BSC

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The interplay of $\Delta 133p53$ with p53 and its target genes in lung cancer

$\Delta 133p53$ isoforms of the tumor suppressor gene p53, have been shown to be regulators of the cell cycle and apoptosis as they are activated in stress conditions. $\Delta 133p53$ isoforms along with the key partners of p53 and in particular the apoptotic factors MDM-2, PUMA and the cell cycle regulator p21, are considered to be responsible for the regulatory processes in cancer. Increased $\Delta 133p53$ levels have been found in various types of cancer including lung cancer. The aim of the present study is to evaluate how changes in the expression of $\Delta 133p53$ isoforms, following overexpression or silencing experiments, affect the expression of both p53 and its target genes. The human lung fibroblast cell line MRC-5 and the cancerous human lung alveolar epithelial cell line A549 were utilized in this study as in vitro models of normal and cancerous lung cell lines respectively. Overexpression and silencing experiments of p53 and $\Delta 133p53$ isoforms were performed. The effect of their overexpression as well as their silencing studied both at the transcriptional and translational levels, on p53 as well as on its target genes. The overexpression of full length p53 transcript led to the upregulation of p21 and downregulation of $\Delta 133p53$ transcripts in A549 cell line. Similarly, silencing of full length p53 led to the downregulation of p21 transcripts in A549 cell line. The overexpression of $\Delta 133p53$ transcript promoted the downregulation of p21 and MDM-2 whereas the levels of PUMA transcript remained the same. These results come in agreement with previous published data enhancing $\Delta 133p53$ mRNA level potential use as a biomarker in lung cancer.

Keywords: p53, $\Delta 133p53$ isoforms, lung cancer

Biography:

Dr. Fragou is a Laboratory reader in Biochemistry, in the laboratory of Biological Chemistry Medical School, AUSoM. She is a current Postdoc researcher and IKY grant holder for the Investigation of the regulatory role of $\Delta 133p53$ isoforms in tumor cell oncogenesis. During the academic years 2017-2019 she has been a Laboratory co-tutor in Basic Science Methodology, MSc Medical Research Methodology, AUTH. Dr. Fragou participated in the authorship of 11 scientific papers published in international journals, 5 articles published in conference peer-reviewed proceedings and 1 book chapter. Her work is cited in 141 articles (h-index=6).

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PUJA GAUR KHAITAN

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Salvage resection: Role of immunotherapy in lung cancer surgery

Immunotherapy is revolutionizing the field of oncology. With more and more patients being diagnosed early (with lung cancer screening exams), more stage IB-IIIA lung cancer being treated with upfront immunotherapy, and more patients with advanced lung cancer being referred for salvage resection after suffering from a local recurrence years after clinical complete response, a great proportion of patients are now undergoing surgery. A number of case reports and series are suggesting that despite the dense fibrosis and scarring around the hilum, resection after immunotherapy have good outcomes with acceptable morbidity and mortality. This presentation will review recent literature on the subject and highlight personal experience with this challenging patient cohort.

Keywords: immunotherapy, tumor biology, lung cancer, salvage resection

Biography:

Dr. Puja Khaitan, is a board-certified thoracic surgeon, who is a Professor at Georgetown University in Washington DC. As the director of esophageal surgery and the medical director of the thoracic unit, Dr. Khaitan primarily performs robotic surgery involving the lung, mediastinum, esophagus, and foregut. She also conducts major reconstructive esophageal surgery such as supercharged-jejunal interposition and is actively growing the institution's endoscopic program for EMR and POEM. Additionally, Dr. Khaitan is the surgical liaison for the institution's quality, safety, and outcomes council, high-risk procedure committee, and heads the pain and ERAS committees as their surgical champion.

In addition to clinical scholarship, Dr. Khaitan has a strong interest in research, education, and innovation. As a clinician-scientist with key research interests in various aspects of lung and esophageal cancer, Dr. Khaitan has published and presented on screening to diagnosis and management of early-stage cancer to understanding tumor biology, response to immunotherapy, and radiation repair pathways. She leads a multitude of training curricula for residents, thoracic mid-levels as the advanced practitioner delegate, surgical floor nurses, and operating room nursing. Earlier this year, she launched the very 1st Medstar wide Esophageal Cancer Conference. As an avid advocate of lung and esophageal cancer screening, she actively participates and has spoken on online blogs, podcasts, and held a year-long lecture series at local YMCA centers. Dr. Khaitan is well published, holds numerous positions in various national committees, and actively participates in national and international meetings with a global presence in the field. Finally, Dr. Khaitan has a passion for innovation and cutting-edge research on digital technology/translational medicine.

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ANTON GRYAZNOV

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Comparison of F18-PSMA PET/CT and pelvic MRI for the detection of prostate cancer and metastatic disease.

Introduction:

Metastatic prostate cancer is one of the leading causes of death in men worldwide. Early diagnosis of initial and recurrent prostate cancer is a cornerstone for further management. Although, pelvic MRI is an essential diagnostic modality in detection of prostate cancer and staging, it could not be sufficient in low-and-intermediate risk patients.

Methods:

We have conducted observational, retrospective study on 40 patients with biopsy-proven prostate cancer who undergone F18-PSMA PET/CT and multi parametric MRI in our institution. All MRI images were scored with the Prostate Imaging-Reporting (PI-RADS). F18-PSMA PET/CT scans were reviewed for pathologic lesions and staging by two board-certified radiologists and nuclear medicine physician.

Results:

A total of 40 patients with known prostate adenocarcinoma were analyzed. Of the 40 patients, 28 (70%) patients presented with pathological prostate lesions on MRI, and 32 (80%) patients presented with positive F18-PSMA PET/CTs. Suspicious regional lymph nodes were identified in 4/28 (14,2%) patients on pelvic MRI, and 12/32 (32.5%) patients on F18-PSMA PET/CT imaging. Detection rate was higher when both modalities were performed pelvic MRI and F18-PSMA PET/CT with pathological findings in 38/40 patients (95%; $p < 0.05$) rather than pelvic MRI alone (28/40; 70%) in patients with low-intermediate-and high risk of prostate cancer.

Conclusion:

The study demonstrated that 18F-PSMA-PET/CT showed superiority in detecting prostate lesions than pelvic MRI and seems to be superior to pelvic mpMRI in the detection of locoregional lymph node metastases. F18-PSMA PET/CT and MRI showed significant higher performance when both modalities were performed. Evaluating PSMA PET/CT and pelvic MRI images as well as clinical medical records might prevent a misdiagnosis in clinical settings.

Keywords: prostate cancer, PET/CT, MRI, PSMA, diagnosis

Biography:

Anton Gryaznov, Intern: Department of General Surgery, Saint Mary's Hospital, Waterbury CT USA, Residency: Department of Radiology and Nuclear Medicine, University of Maryland Medical Center

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ALAIN CHAPEL

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⁴ Department of Radiation Oncology, Pitie-Salpetriere University Hospital, Paris, France; ⁵ Blood Transfusion Center of Army, Percy Military Hospital, Clamart, France.

From experimental research to clinical trial in the treatment of complications of radiotherapy by stem cells.

During radiotherapy, the radiation beam can affect healthy tissues in the field of irradiation, even if it specifically targets the tumor, causing sequelae in 10% of patients that can occur up to 20 years after treatment. In the abdominal-pelvic area, this results in severe pain and extremely disabling functional disorders of the bladder and bowel. Current treatments are mainly symptomatic, and some patients do not respond.

For several years, Institut de Radioprotection et Sureté Nucléaire has been conducting research on cell therapy strategies using Mesenchymal Stromal Cells to repair radiation-damaged tissue. This experimental research, which is currently being carried out on different animal models, indicates that in the abdominal-pelvic area, Mesenchymal Stromal Cells stimulate the repair process after irradiation. They have thus made it possible to offer this treatment in a compassionate setting to human victims of the radiotherapy accident that occurred at the Jean Monnet Hospital in Epinal (Vosges, France). Four patients suffering from severe pelvic side effects due to excessive radiation dose after conformal radiotherapy for prostate adenocarcinoma received intravenous injections of allogeneic mesenchymal stromal cells.

For treated patients, mesenchymal Stromal Cell therapy was effective on pain, diarrhea, hemorrhage, inflammation, fibrosis and limited fistulization. No toxicity was observed. We are now starting inclusion in a clinical research protocol of phase 2, for patients with post-radiation abdominal and pelvic complications who have not seen their symptoms improve after conventional treatments (NCT 02814864, PRISME). Patients included in this trial will receive injections of allogeneic Mesenchymal Stromal Cell (from intra-family donors) and will be followed for 12 months at Hospital St-Antoine (Paris, France).

At the end of this period, if the efficacy of the treatment is proven, a phase III trial including a larger number of patients over a longer period will be used to confirm the therapeutic properties of this treatment.

Keywords: cancer, raditherapy, clinical trial, cell therapy

Biography:

Alain CHAPEL, For 25 years, he has been developing gene and cell therapy using non-human primates, immune-tolerant mice and rats to protect against the side effects of radiation. He collaborates with clinicians to develop strategies for treatment of patients after radiotherapy overexposures. He has participated in the first establishment of proof of concept of the therapeutic efficacy of Mesenchymal stem cells (MSCs) for the treatment of hematopoietic deficit, radiodermatitis and over dosages of radiotherapy. He has contributed to the first reported correction of deficient hematopoiesis in patients (graft failure and aplastic anemia) thanks to intravenous injection of MSCs restoring the bone marrow microenvironment, mandatory to sustain hematopoiesis after total body irradiation. He is scientific investigator of Clinical phase II trial evaluating the efficacy of systemic MSC injections for the treatment of severe and chronic radiotherapy-induced abdomino-pelvic complications refractory to standard therapy (NCT02814864), Hirsch Index 29.

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ANDREA DIVIZIA

Andrea Divizia and Andrea Martina Guida
Tor Vergata Hospital, Rome, Italy

Advancement in locally advanced rectal cancer treatment

Colorectal carcinoma is the second leading cause of cancer-related deaths, and indeed, rectal cancer accounting for approximately one third of newly diagnosed patients. Gold standard in the treatment of rectal cancer is a multimodality approach, aiming at a good control of the local disease. Distant recurrences are the major cause of mortality. Currently, Locally Advanced Rectal Cancer (LARC) patients undergo a combined treatment of chemotherapy and radiotherapy, followed by surgery. Eventually, more chemotherapy, namely adjuvant chemotherapy (aCT), may be necessary. Total Neoadjuvant Therapy (TNT) is an emerging approach aimed to reduce distant metastases and improve local control. Several ongoing studies are analyzing whether this new approach could improve oncological outcomes. Published results were encouraging, but the heterogeneity of protocols in use, makes the comparison and interpretation of data rather complex. We performed a systematic literature search of randomized clinical trials and meta-analysis, summarizing current knowledge on TNT. The aim was to confirm or refute whether or not current practice of TNT is based on relevant evidence, to establish the quality of that evidence, and to address any uncertainty or variation in practice that may be occurring. A tentative grouping of general study characteristics, clinical features and treatments characteristics has been undertaken to evaluate if the reported studies are sufficiently homogeneous in terms of subjects involved, interventions, and outcomes to provide a meaningful idea of which patients are more likely to gain from this treatment.

Keywords: Total Neoadjuvant Therapy; Neoadjuvant chemoradiotherapy; Rectal cancer; Locally Advanced Rectal Cancer; Tumor Regression Grade; pathological Complete Response

Biography:

Andrea Divizia a colorectal surgeon and my main interest field is colorectal cancer and IBD surgery. I can boast a large series of colorectal operations, since my experience has begun as fellow in a minimally invasive surgery Unit. I also had international experience getting involved in scientific studies in collaboration with in French, Spanish and Dutch hospitals. I am actually the head of the colorectal outpatient clinic, the person in charge of the minimally invasive emergency treatment of gastrointestinal surgery in Tor Vergata Hospital and of the perianal Crohn's disease in our IBD-referral centre. I earned a PhD in Public Health in 2022.

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ALAIN CHAPEL

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Stem cell therapy in radiotherapy from bench to Clinical Trial Evaluating the Efficacy of Mesenchymal Stromal Cell Injections for the Treatment of Chronic Pelvic Complications Induced by Radiation Therapy

The late adverse effects of pelvic radiotherapy concern 5 to 10% of patients, which could be life threatening. However, a clear medical consensus concerning the clinical management of such healthy tissue sequelae does not exist. Our group has demonstrated in preclinical animal models that systemic mesenchymal stromal stem cells (MSCs) injection is a promising approach for the medical management of gastrointestinal disorder after irradiation.

In a phase 1 clinical trial, we have shown that the clinical status of four first patients suffering from severe pelvic side effects (Epinal accident) was improved following MSC injection (figure). Two patients revealed a substantiated clinical response for pain and hemorrhage after MSC therapy. The frequency of painful diarrhea diminished from 6/d to 3/d after the first and 2/d after the 2nd MSC injection in one patient. A beginning fistulization process could be stopped in one patient resulting in a stable remission for more than 3 years of follow-up. A modulation of the lymphocyte subsets towards a regulatory pattern and diminution of activated T cells accompanies the clinical response. MSC therapy was effective on pain, diarrhea, hemorrhage, inflammation, fibrosis and limited fistulization. No toxicity was observed.

We are now starting a clinical research protocol for patients with post-radiation abdominal and pelvic complications who have not seen their symptoms improve after conventional treatments (NCT02814864, Trial evaluating the efficacy of systemic MSC injections for the treatment of severe and chronic radiotherapy-induced abdomino-pelvic complications refractory to standard therapy (PRISME). It involves the participation of 6 radiotherapy services for the recruitment of 12 patients. They will all be treated and followed up in the hematology department of Saint Antoine Hospital. The cells will be prepared in two production centers (EFS Mondor and CTSA). Treatment is a suspension of allogeneic MSCs. Eligible patients must have a grade greater than 2 for rectoragy or hematuria at inclusion and absence of active cancer. Each patient receives 3 injections of MSCs at 7-day intervals. Patients will be followed up over a 12-month period. The main objective is a decrease of one grade on the LENT SOMA scale for rectorrhagia or hematuria. The secondary objective is to reduce the frequency of diarrhea; analgesic consumption, pain and improved quality of life.

Biography:

Alain CHAPEL, For 25 years, he has been developing gene and cell therapy using non-human primates, immune-tolerant mice and rats to protect against the side effects of radiation. He collaborates with clinicians to develop strategies for treatment of patients after radiotherapy overexposures. He has participated in the first establishment of proof of concept of the therapeutic efficacy of Mesenchymal stem cells (MSCs) for the treatment of hematopoietic deficit, radiodermatitis and over dosages of radiotherapy. He has contributed to the first reported correction of deficient hematopoiesis in patients (graft failure and aplastic anemia) thanks to intravenous injection of MSCs restoring the bone marrow microenvironment, mandatory to sustain hematopoiesis after total body irradiation. He is scientific investigator of Clinical phase II trial evaluating the efficacy of systemic MSC injections for the treatment of severe and chronic radiotherapy-induced abdomino-pelvic complications refractory to standard therapy (NCT02814864Hirsch Index 29).

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ABDELRAMAN ZAKARIA

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Novel treatment of Covid 19,Evaluation of Sofosbuvir and Daklatasvir combo, Single arm study

Back ground & Aims:

The coronavirus disease 2019 (COVID-19) pandemic is an ongoing global health crisis caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Intervening early in the disease course by antivirals can delay progression and improve clinical outcomes. Since Direct-acting antivirals (DAAs) changed the entire landscape of hepatitis C (HCV) treatment, there has been considerable interest with these DAAs, such as sofosbuvir and daclatasvir, as new repurposed options in COVID-19 therapeutics . This study is carried out to determine whether sofosbuvir/daclatasvir-based regimens improve clinical outcomes of patients with moderate or severe COVID-19.

Methods:

This was a prospective study including patients with PCR- confirmed COVID-19, that were treated with sofosbuvir and Daklatasvir-based regimen for 14 days.

Results:

Demographic data of the included 54 patients: Male (57%), female (43%), age <50 years (48%), > 50 years (52%), smoking (9%), diabetes mellitus (9%) and hypertension in 28% of patients. Clinical presentation of COVID-19: Fever (87%), cough (97%), dyspnea (70%), chest pain (61%), sore throat (53%), diarrhea (50%), mood changes (43%), muscle pain (87%), oxygen saturation median (93.5 +/- 5.5 %), and CT chest changes indicating COVID-19 was received in (55%) of patients.

Laboratory data:

PCR for Covid-19 was positive in (100%) , CRP was positive in (87%).

Outcome:

Complete recovery was observed in 100%, and none of the patients progressed to severe stage.

Conclusions:

Sofosbuvir/ daclatasvir- based regimen is highly effective and safe in curing patients with Covid-19, preventing progression to severe stage as well as in decreasing mortality.

Biography:

Abdelraman Zakaria, graduated from Faculty of medicine Alexandria University in 2019 , participated in many international conferences last one in Dubai in December 2022 presented two papers in that conference. My main field of interest is Hepatology and liver cancer .

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FAEZEH SOVEYZI

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cancer diagnosis during pregnancy

The diagnosis of Cancer in pregnant women has increased due to the boost of the gestational- age and prenatal tests. The challenges that exist during pregnancy make it impossible to use any imaging study as a suitable diagnostic method. These challenges can include fetal death due to the radiation and Lack of a defined imaging protocol for pregnant women. Among the cancers that are more commonly found during pregnancy, breast, gynecological, thyroid and digestive tract cancers can be mentioned. In addition, according to the changes such as nausea and vomiting, fatigue and other problems that are similar to the problems of pregnancy, it is difficult to distinguish it from cancer. In this way, cancer will be detected at higher stages. During pregnancy, ultrasound and MRI are considered the first diagnostic step due to the lack of radiation. However, other cases that are not resolved by these diagnostic modalities should be decided by the radiologist. It should be noted that the maximum cumulative radiation dose for the fetus should not exceed more than 100mGy. Although ultrasound has no known harm to the fetus, there are theories that it may be teratogenic due to the high temperature of it. For this reason, it is recommended that the time of sonography should not be more than 30 minutes and Doppler should not be used as much as possible. Finally, if the benefit of a modality such as CT or bone scintigraphy or PET-CT for the mother is clearly greater than its harm to the fetus, that method should be used to prevent the progression of cancer.

Biography:

Faezeh Soveyzi, with 25 years old. I was born in Mashhad, Iran. As a teenager, I studied in SAMPAD high schools and tried hard to get accepted in medicine. I studied medicine at Tehran university of medical sciences (TUMS). After graduation as a general practitioner from TUMS I started to study residency at Mashhad university of medical sciences(MUMS). Now I'm a first year radiology resident. In addition to study medicine and working at the clinic, I am very interested in research, so from the beginning of medicine, I worked in various fields and had a special interest in Radiology. That's why I started to research at the University-affiliated Cell Therapy and Regenerative Medicine Research Center. In this center, we tried to first do the necessary studies on new issues in various fields of medicine and then write an article about the best idea. I hope that our researches can help the world even a little.

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DR SYED SAAD SALMAN

Dr Syed Saad Salman, Dr Adarsh W. Barwad, Dr Asit R. Mridha, Prof Sameer Bakhshi,
Prof VK Iyer

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PDL1 expression correlates with the density of tumor-infiltrating lymphocytes (TILs) in high-grade osteosarcoma and is an independent marker irrespective of disease progression and metastasis

Background and objective:

Osteosarcoma is the most common primary malignant bone tumor in children and young adults and has a high propensity for local invasion and metastasis. Not much work has been done to explore immunotherapy targeting PD1-PDL1 axis in osteosarcoma. This study shows the correlation between PDL1 expression and TILs in high-grade osteosarcomas.

Materials and methods:

PDL1 expression by immunohistochemistry and TILs were evaluated in 40 resection specimens of high-grade osteosarcoma. A score of 0-3 was given for PDL1 expression. TILs were calculated under 400X (in 10 fields) and a score of 0 was given when there was no lymphocyte, 1 for 1-10 lymphocytes/hpf, 2 for 11-50 lymphocytes/hpf and 3 for >50 lymphocytes/hpf. Clinical data was collected from record sections.

Results:

The mean age of presentation was 16 years with a male to female ratio 1.6:1. The most common bone involved was femur followed by tibia. The most common site of metastasis was lung. PDL1 was positive in 82.5% of the cases (33/40). 17.5% of the patients (7/40) did not show PDL1 expression. 15% (6/40) showed a score of +1, 27.5% a score of +2 and 40% (16/40) showed a score of +3. It was observed that PDL1 expression correlated with the density of TILs ($p=0.029$). However PDL1 expression and TILs did not correlate with any of the clinicopathologic parameters like age; sex; histologic type; tumor size, site and necrosis; metastasis; progression and relapse; duration of chemotherapy; radiotherapy; follow up and survival data.

Conclusion:

Our research shows that PDL1 is an independent marker in high-grade osteosarcoma and cannot be taken as a basis for judging progression of the disease. However since in our study it correlated directly with the TILs density, it can be regarded as a potential therapeutic target for tumor immunotherapy.

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WASEEM SHARIEFF

Di S2, Ullah J1, Nichol A1, Atwal P2, Al-Mahmudi M1, Beaton L1, Davis M3, Awotwi-Pratt J2, Wu M2, Tyldesley S1, Sharieff W1.

Depts of Radiation Oncology¹ and Medical Physics², BC Cancer Agency, University of British Columbia, and Dept of Cardiology³, University of British Columbia, Vancouver, Canada.

Does Radiotherapy Cause Coronary Artery Disease in Women with Breast Cancer? Results of a Case-Control Study and Literature Review.

Purpose:

To determine the risk of cardiac death following breast radiotherapy from the change in coronary artery calcification (CAC) scores and examine the association of CAC scores with radiation dose to determine dose constraints for coronary arteries. Materials and

Methods:

We conducted a nested study within a previously published study data on early-stage breast cancer patients who had received adjuvant radiotherapy between 2002 and 2006 in British Columbia (BC). Using validated methods, we computed CAC scores of left anterior descending (LAD) on the baseline CT scan and on the last post radiotherapy (final) CT scan. From radiotherapy plans, we computed doses to LAD. We examined the association between CAC scores and coronary doses using available information on cardiovascular risk factors and causes of death. In addition, we performed a systemic review of the literature on association of radiation dose and CAC scores. Results: Post radiotherapy CT scans were available for 25 patients (13 left and 12 right). The mean time interval between baseline and final CT scans was 10.8 years (4-19 years; min-max). Of the 25 patients, three patients had no cardiovascular risk factors, and the LAD CAC score was 0 at baseline with no significant change in 7-16 years post-treatment; no cardiac death was recorded in them. Six (24%) patients progressed from mild/moderate to severe/extensive CAC category in LAD. Most of the elevated CAC scores were observed in low dose rather than in high dose regions. Literature review yielded similar findings.

Conclusions:

There was no correlation between radiation doses to coronary arteries and CAC scores. Radiation may have a stochastic rather than a deterministic effect on coronary atherosclerosis. Thus, there is no safety threshold dose.

Keywords: Breast cancer, radiation induced coronary disease, coronary calcium score, left anterior descending artery stenosis.

Biography:

Dr Sharieff, did medical training in Radiation Oncology at the McMaster University, Hamilton in Ontario and PhD in Clinical Epidemiology/Biostatistics at the University of Toronto, in Ontario. He specializes in stereotactic radiotherapy for CNS, GU and lung tumors. His research interests include radiation induced cardiac toxicity in breast patients. He has an active practice in the Canadian province of British Columbia and he is involved in teaching and training residents and fellows. He is also the fellowship director at BC Cancer Abbotsford.

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FRANCESCA MAURIZI

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Dosimetric impact of Deep Inspiration Breath-Hold in Left Sided Whole Breast Radiotherapy

After breast conserving surgery, adjuvant radiotherapy (RT) reduces the risk of recurrence and improves overall survival. Late cardiac toxicity induced by left sided whole breast RT appeared to be a rare but relevant sequela. Large effort has been made in recent years to develop techniques to reduce the dose to organ at risks (especially heart and lung).

The aim of this analysis is the evaluation of the benefits of Deep Inspiration Breath-Hold (DIBH) technique compared with Free Breathing (FB) RT.

The respiratory gating systems were optical surface scanning devices: Sentinel for the CT simulation and Catalyst HD for the radiation treatment. The patient training was carried out with electronic eyeglasses. Only patients able to follow the video coaching to find their individual deep inspiration level and to retain breathing for at least 20 seconds have been included. Patients underwent the planning CT in the supine position with the acquisition of both FB and DIBH image sets. Contouring and treatment planning were realized on both CT studies. From March 2019 to September 2021, 97 patients (median age: 53 years, range: 24-75) successfully completed DIBH simulations. Patients received 40 Gy in 15 fractions; 17 plans were realized with VMAT modality and 80 with 3DCRT planning technique. All cardiac dosimetric parameters were significantly improved with the use of DIBH: MHD and D2cc decreased of 30% (1.7 Gy FB vs 1.16 Gy DIBH; $p < 0.0001$) and 56% (17.72 Gy FB vs 7.76 Gy DIBH; $p < 0.0001$) respectively. For left MLD the average dose reduction was 3% with DIBH ($p = 0.04$). Patients treated with VMAT modality experienced a significantly larger reduction in MLD (10.5%). DIBH with surface tracking systems results to be a feasible and effective option for cardiac dose sparing.

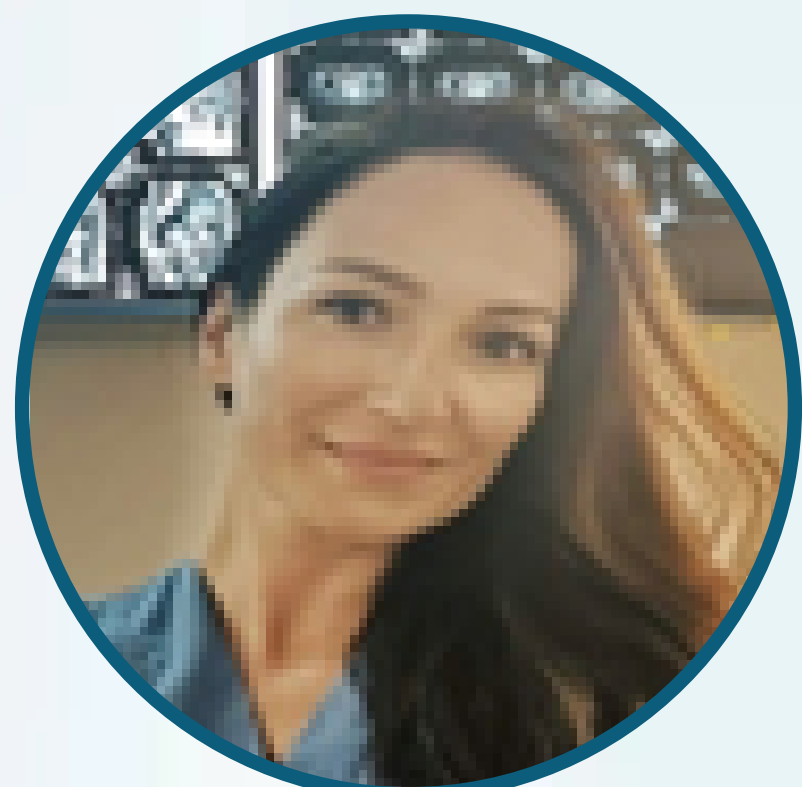
Keywords: Deep Inspiration Breath Hold, Cardiac dose reduction, Breast Radiotherapy, Surface Tracking System

Biography:

Francesca Maurizi, graduated in Medicine in 2001 and became specialist in Radiation Oncology in 2005 at Università Cattolica S. Cuore in Rome (Italy). In 2014 she obtained a master of Innovative Health Care Management degree at "Carlo Bo" University in Urbino (Italy). She is member of the European Society for Therapeutic Radiology and Oncology (ESTRO) and of the Italian Association of Radiation Oncologist (AIRO) since 2002. She is medical assistant at the Radiotherapy Unit of Ospedali Riuniti Marche Nord in Pesaro, since 2007. Her activity was focused especially on GI, GU, breast and Head & Neck cancers, as well as palliative care and the implementation of high technology radiation therapy in her department. She is author of many abstracts accepted to national and international medical meetings and publications in peer-reviewed journals.

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MILICA MITROVIC

Milica Mitrovic, Aleksandra Djuric-Stefanovic, Keramatollah Ebrahimi, Jelena D Kovac, Aleksandra Jankovic, Dusan Saponjski, Milena Kostadinovic, Andjelka Djuric and Boris Tadic
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The utility of conventional CT, CT perfusion and quantitative diffusion-weighted imaging in predicting the high-risk of gastrointestinal stromal tumor of the stomach

The utility of advanced functional imaging techniques in prediction of risk stratification of gastrointestinal stromal tumors (GIST) is still unknown. The purpose of this study was to evaluate classical CT features, CT-perfusion and magnetic-resonance-diffusion-weighted-imaging (MR-DWI) related parameters in predicting the metastatic risk of gastric GIST.

Sixty-two patients with histologically proven GIST who underwent CT perfusion and MR-DWI using multiple b-values were prospectively included. Morphological CT characteristics and CT-perfusion parameters of tumor were comparatively analyzed in the high-risk (HR) and low-risk (LR) GIST groups. Apparent diffusion coefficient (ADC), and intravoxel-incoherent-motion (IVIM)-related parameters were also analyzed in 45, and 34 patients, respectively.

Binary logistic regression analysis revealed that greater tumor diameter ($p < 0.001$), cystic structure ($p < 0.001$), irregular margins ($p = 0.007$), irregular shape ($p < 0.001$), disrupted mucosa ($p < 0.001$) and visible EFDV ($p < 0.001$), so as less ADC value ($p = 0.001$) and shorter time-to-peak ($p = 0.006$) were significant predictors of HR GIST. Multivariate analysis extracted the irregular shape ($p = 0.006$) and enlarged feeding or draining vessels (EFDV) ($p = 0.017$) as independent predictors of HR GIST (area under curve (AUC) of predicting model 0.869). In summary, our research resulted in the regression model where the irregular tumor shape and presence of EFDV were the most significant and independent predictors for high metastatic potential of gastric GISTs. We can conclude, that morphological characteristics of the tumor detected by conventional CT examination still hold the greatest value in preoperative risk stratification of gastric GIST. In addition, the advanced functional imaging techniques may enable accurate preoperative assessment of risk stratification of gastric GIST, which is of great importance for the appropriate treatment planning.

Keywords: gastrointestinal stromal tumors (GIST); CT perfusion; incoherent motion (IVIM); apparent diffusion coefficient (ADC)

Biography:

Milica Mitrovic, has been employed as radiologist at the Department of Digestive Radiology, First Surgical Clinic, where she gained extensive experience in diagnosing diseases of the digestive tract. She is the teaching assistant at Faculty of Medicine, University of Belgrade. In collaboration with the Center for Esophageal and Gastric Surgery and the Department of Pathology, she collaborates on the assessment of the importance of advanced MDCT techniques in preoperative prediction of malignant potential of gastrointestinal stromal tumors, which is the topic of her PhD. She is the author of publications related to the radiological-surgical-pathological correlation of malignant diseases of the digestive system.

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SAMI FENDRI

Haitham Rejab, Sami Fendri, Ayman Trigui, Bassem Abid, Majdoub Youssef, Hazem Ben Ameer, and Salah Boujelbene

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A rare case of small intestinal metastasis from lung cancer

A 61-year-old man presented to our emergency department with a complaint of a 3 days duration of lower abdominal pain, which had gradually migrated to epigastric area, vomiting, and constipation. The diagnosis of small bowel obstruction was suspected. Notably, he had a past medical history of epidermoid lung cancer, diagnosed 1 year prior. He was thought to be in remission following chemotherapy. Upon hospital admission, he underwent computed tomography (CT) of the abdomen and pelvis with contrast. Images revealed distended stomach with mural bowel thickening (Figure 1°,B). Midline incision laparotomy surgery with partial resection of the small intestine was performed. The tumor had invaded two parts of the small intestine (Figure 2°,B). There was no necrosis or ischemia of proximal bowel that was only distended. Pathology confirmed the diagnosis of small bowel metastasis from primary lung epidermoid carcinoma. The postoperative course was uneventful but the patient died 1 year later after lung cancer recurrence

Keywords: lung cancer; small intestine metastasis; surgery

Biography:

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SAMI FENDRI

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EXTRARENAL ANGIOMYOLIPOMA: A RARE CASE

A 28-year-old woman with right flank pain for one day was submitted to computer tomography that showed an incidental extra-renal retroperitoneal mass measuring 6x5 cm.

This tumor has solid-cystic component and seems to be close to the third duodenum and the uncinate process and the inferior vena cava. No lymphadenopathy was detected.

The physical exam was normal. The skin changes related with tuberous sclerosis were not present. The laboratory investigations were normal including tumor markers (carcinoembryonic antigen, CA 19-9, CA 125).

A CT-guided biopsy of the retroperitoneal mass was performed. The cytological examination of the specimen revealed fusiform cells and cohesive stromal fragments, adipose tissue, and branching blood vessels within a haemorrhagic background. Immunohistochemical exam was positive for α -smooth muscle actin and HMB45 and negative for S-100 protein and C-KIT in fusiform cells. Based on these histologic and immunohistochemical findings, the diagnosis of Extrarenal angiomyolipomas (ERAML) was made.

Considering the fact that EAML are benign tumor, we opted for regular follow-up.

After two years, the patient reported an exacerbation of abdominal pain. Also, she reported an history of gain in weight and constipation. Physical examination revealed an indolent non-movable mass located at the right flank. The abdominal CT scan showed a radiological enlargement (14x12 vs 6x5 cm) and vascular involvement.

Considering these clinical and radiological findings, a complete excision was made through a midline incision.

Final histologic examination confirmed the biopsy findings. The patient recovered uneventfully and was discharged home on postoperative day 7. At 5-month postoperative follow-up, the patient was asymptomatic.

Keywords: extrarenal angiomyolipomas; surgery

Biography:

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ELHAM ZAREI

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Giant pedunculated hepatoblastoma mimicking neuroblastoma in a 4-month-old infant: a case report

Hepatoblastoma is the most common primary malignancy of hepatic origin in children, with an estimated incidence of 0.5-1.5 per million children.

Hepatoblastoma classically has an intraparenchymal location, and pedunculated hepatoblastoma is an extremely rare entity. Accurate diagnosis can be challenging due to its extrahepatic location and possibly its thin peduncle, which is not easily identified in imaging.

Here, we report a case of asymptomatic giant palpable hepatoblastoma in the LUQ of a four-month-old male infant, initially suspected of neuroblastoma based on abdominal ultrasound findings. The final diagnosis of giant pedunculated hepatoblastoma was made based on the abdominal CT scan and the diagnosis was confirmed by percutaneous biopsy.

Due to the size of the tumor, complete removal of the tumor was not initially possible. Therefore, the patient was treated with several courses of chemotherapy. The tumor was shrunk and then completely removed. The patient was treated, and no complications were found in the 6-month follow-up.

Pedunculated hepatoblastoma is very rare but should be considered as a possibility in the case of a perihepatic mass in a pediatric patient that can be confused with other upper abdominal masses such as an adrenal mass.

Therefore, in such cases, we must look for the vascular pedicle in the imaging and keep the AFP check in mind.

Keywords: pedunculated hepatoblastoma ,ultrasound , hepatic mass

Biography:

Elham Zarei, a pediatric radiologist with ten years of work experience in a specialized children's hospital in Tehran (Iran).

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LEILA MAHMOUDI

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A simple conceptual model to predict early recurrence and death after curative surgery in patients with colorectal cancer

Introduction:

Generalized structural equation model for survival analysis with accelerated failure time in predicting early recurrence and death after curative surgery in patients with colorectal cancer.

Methods:

This study is a retrospective cohort of 284 patients with colorectal cancer who underwent surgery referred to Imam Khomeini Clinic in Hamadan during the years 2001-2017. All demographic information and other required information were extracted from patients' records. The age at the time of diagnosis, sex and clinical and pathological variables, type and date of the first treatment, degree of tumor differentiation, disease stage, recurrence and metastasis, and types of treatment (surgery, chemotherapy, and radiotherapy) were included as the predictors. A generalized structural equation model for survival analysis with an accelerated failure time model was calculated for unadjusted and adjusted time ratios (TRs).

Results:

The results showed that patients who did not receive chemotherapy had a lower survival time and increasing the number of chemotherapy sessions led to increased survival time. Metastasis to other sites was associated with decreased survival. Women had more survival time compared to men. Higher disease stages led to decreasing survival times.

Conclusion:

based on the optimal model, metastasis to other sites, age, number of chemotherapy sessions, and disease stages showed a significant relationship so it is suggested to consider Regular screening and Preventive measures should be done in the target groups.

Keywords: structural equation model, conceptual model, early recurrence, colorectal cancer

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LEILA MAHMOUDI

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⁴ Modeling of Non-communicable Diseases Research Center, Department of Biostatistics, School of Public Health, Hamadan University of Medical Sciences, Hamadan, Iran

Predicting early recurrence and death after curative surgery in patients with colorectal cancer: A neural network modeling

Aim:

In this study, the aim is to use a neural network modeling on Factors of early Recurrence and Postoperative Death in Patients with Colon Cancer.

Methods:

This study is a retrospective cohort of 284 colorectal cancer patients with resection referred to Imam Khomeini clinic in Hamadan during 1380-1386. The main variables include background and pathological variables. The patients' recurrence status was determined from patients' records. Neural network modeling in STATISTICA (ver. 13.2) software was used to analyze the data.

Results:

Finding showed Based on the best model, the metastases to other site with a weight of 100% had the greatest effect in predicting recurrence, and the disease stage had a 47% effect. Also, the time recurrence variable with a weight of 100% had the greatest effect in predicting the death variable. The time survival variable was 98% and the metastases to other site was 81% effective in predicting the death variable.

Conclusion:

Suitable and tailored steps could be taken for policy making according to the specific results obtained for terminal and nonterminal events.

Keywords: neural network, death, early recurrence, colorectal cancer

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PUSHPENDRA D. PRATAP

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Genetic Polymorphism Of IL-1 Beta (-511c/T & +3953c/T) And IL-10 (-1082a/G & -819c/T) With Cervical Cancer Susceptibility

Cervical cancer (CC) is one of the most destructive disease caused by persistent HPV infection, especially in developing countries. The genetic basis of host immune response has been shown to influence CC susceptibility. Though, aim of our study to investigate the association between IL-1 β (-511C/T & +3953C/T) and IL-10 (-1082A/G & -819C/T) polymorphism and CC susceptibility. This study comprised 192 cases and 200 controls. HPV analysis was done by RT-PCR and SNPs genotyping through PCR-RFLP. HPV 16 was more common as compared to HPV 18 in cases. The CC, CT and TT genotype frequency of -511C/T were (16.67%, 45.31% and 38.02%) as compared to controls (41%, 31% and 28%). Similarly, AA, AG and GG of -1082A/G genotype were (38.54%, 55.73% and 5.73%) and controls (56%, 34.5% and 9.5%). Women with CT and TT genotypes of -511C/T had 3.3-3.6 folds higher risk of cervical cancer ($P < 0.001$). The -511T allele was significantly linked with susceptibility to cervical cancer ($P = 0.0001$). Individuals with AG and AG+GG genotypes of -1082A/G had two-fold increased risk of CC [OR, 2.35 (95% CI, 1.54-3.58), $p = 0.005$], [OR, 2.03 (95% CI, 1.36-3.04), $p = 0.0005$] compared to controls. Women with G allele of -1082A/G polymorphism had linked with CC susceptibility [OR, 1.39 (95% CI, 1.02-1.88), $p = 0.036$] compared to controls. No significant difference was found between patients and controls in the genotype or allele frequencies of -819C/T polymorphism [OR, 1.00 (95% CI, 0.63-1.58), $p = 0.99$] and +3953C/T polymorphism ($P > 0.05$). These findings help to understand that polymorphism of -511C/T and -1082A/G gene is associated with increased risk of CC and can serve as a marker of genetic susceptibility to CC.

Keywords: HPV, Cervical cancer, gene polymorphism, PCR-RFLP.

Biography:

Pushpendra D. Pratap, pursuing Ph. D under the Supervision of Prof. (Dr.) Syed Tasleem Raza, in the Departemnt of Biochemistry, ERA'S Lucknow Medical College, ERA University, Lucknow. My area of interest for research is molecular biology, genetics of cancer like Prostate cancer, Pancreatic cancer and Gallbladder cancer etc. Currently being a Research Scholar, working on the genetic polymorphism of interleukins with cervical cancer suscpetibility among north Indian population. Additionally, also worked in the field of research like stroke, covid-19. I have published more than 15 original and review article in reputed journals and 3 book chapter with Springer nature.

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DR. KADHIM ALABADY

Amr Abdelmoety 1, Aly Abdelmoety 1, AzzaBaraka 2, Soad Zaki 3, Ahmed Youssef 4, Hoda Abdelmoety 5, Abdelraman Zakaria 6.

1Hepatology Unit-Internal Medicine Dept, 2 Department of Clinical Pharmacology, 3Department of Microbiology and Clinical Immunology, 4Department of Chest diseases,Alexandria university. 5 Assistant Consultant Chemical Pathology Alexandria Research Institute, 6 MBBS

What are the Main Challenges and top Priorities for Cancer in Dubai?

Background:

Cancer is the third leading cause of death in the UAE following heart disease and accidents. This intended Cancer research assessment for Dubai is an overview of the current situation of oncology status in Dubai. It highlights the common cancer disorders and the services provided in both the Governmental and private sectors.

Purpose:

It is important to assess the needs for cancer care in order to provide high quality care and achieving cancer satisfaction for patients and their families through improving services and ensuring delivering effective and equitable care and treatment for people with cancer.

Method:

In order to carry out the cancer needs assessment we have used qualitative data methods to gather evidence, which involved conducting 21 separate focus groups or in-depth interview sessions, brought together 81 cancer experts including oncologist, radiologists, pathologists, gynecologists, psychologists, nurses, Pharmacists from the public and private sectors of Dubai.

Results:

- In term of contents of raising public cancer awareness, an integrated approach is needed to target all major common risk factors for cancer rather than focusing on one certain types of cancers such as breast, cervical, colorectal cancers in contrast to what is happening annually during cancer awareness month's events which is primarily focused on one type of cancer.
- It was highlighted that there is current and future needs for hospice care in Dubai. The aim of hospice care is to improve the lives of people who have an incurable cancer.
- About 97 percent of children with Childhood acute lymphoblastic leukemia (ALL) go into remission within weeks after starting treatment.
- The oncologists observed that the incidence of cancer appear at earlier age compared to western people i.e. the peak of breast cancer incidence is at age of 40 years (10-15 years younger than what is seen in western countries). They suggested this require more genetic investigation for specific inherited mutations in BRCA1 and BRCA2, which increases the risk of female breast and ovarian cancers.

Keywords: cancer, needs-assessment, screening, awareness, prevention, prevalence.

Biography:

Dr. Kadhim Alabady, MBBS; MPH; MSc; DrPH; FFPH (UK); FRCP (Glasgow)

Fellow of the Faculty of Public Health UK (FFPH) and Fellow of the Royal College of Physicians and Surgeons of Glasgow (FRCP - Glasgow). Hold a Doctorate degree in Public Health and Epidemiology, Master degree in Clinical Epidemiology (MSc), Master degree in Public Health (MPH), all from The Netherlands Universities with broad experience driving Research and Development (R&D) strategies and operations.

Registered as Epidemiologist Grade A with The Netherlands Epidemiological Society.

Has numerous publications in the UK in mental illnesses, cancer, cardiovascular diseases, diabetes, Dementia, Autism, COPD, population health, road casualties infectious diseases, vaccination, and others.

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SHERIF SHAZLY



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Endometrial Cancer Individualised Scoring System (ECISS): A machine learning-based prediction model of endometrial cancer prognosis

The aim of the current study is to establish a prognostic model for endometrial cancer (EC), that individualizes risk and management plan per patient and disease characteristics. This is multicentre retrospective study conducted in 9 European gynaecologic cancer centres. Women with confirmed EC between January 2008 to December 2015 were included. Demographics, disease characteristics, management, and follow-up information were collected. Cancer-specific survival (CSS) and disease-free survival (DFS) at 3 and 5 years comprise the primary outcomes of the study. Machine learning algorithms were applied to patient and disease characteristics. Model I: pre-treatment model. Calculated probability was added to management variables (model II: treatment model), and the second calculated probability was added to perioperative and postoperative variables (model III). Out of 1,150 women, 1,144 were eligible for 3-year survival analysis and 860 for 5-year survival analysis. Model I, II, and III accuracies of prediction of 5-year CSS were 84.88%/85.47% (in train and test sets), 85.47%/84.88% and 87.35%/86.05%, respectively. Model I predicted 3-year CSS at an accuracy of 91.34%/87.02%. Accuracy of model I, II and III in predicting 5-year DFS were 74.63%/76.72%, 77.03%/76.72%, and 80.61%/77.78%, respectively. In conclusion, endometrial Cancer Individualised Scoring System (ECISS) is a novel machine learning tool assessing patient-specific survival probability with high accuracy.

Keywords: uterine cancer, overall survival, disease-free survival, artificial

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YANG CHANGJIANG

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The up-regulated expression of AFAP1L1 is indicative for a grim prognosis and chemotherapy in gastric cancer

Recent researches have linked AFAP1L1 to cancer aggressiveness and a negative prognosis. Its function in Gastric cancer (GC), however, is not fully grasped. This study investigated the association between AFAP1L1 expression and clinicopathological features of GC cases, as well as its prognostic value and biological function based on large-scale databases from the Gene Expression Omnibus (GEO) and The Cancer Genome Atlas (TCGA) and clinical samples. The results showed that the expression level of AFAP1L1 was elevated in GC, which was generally associated with shortened survival time and poor clinical indexes. Multivariate Cox regression analysis showed that elevated AFAP1L1 expression was an independent factor for poor prognosis in GC patients. Functional enrichment analysis of AFAP1L1 and its co-expressed genes revealed that AFAP1L1 could act as an oncogene by regulating gene expression in essential functions and pathways of tumorigenesis, such as cell junction, angiogenesis-associated pathways, and immune response-associated pathways. In addition, immune cell infiltration results showed that AFAP1L1 expression was associated with various immune cells, especially macrophages. Furthermore, our findings suggested a possible function for AFAP1L1 in the polarization of macrophages from M1 to M2 in GC. Finally, the relationship between AFAP1L1 expression and sensitivity to drugs was examined in Cellminer. AFAP1L1 was negatively related to the sensitivity of oxaliplatin, while positively with dabrafenib. In summary, AFAP1L1 may potentially be employed as a diagnostic and prognostic biological marker, and it also offers more in-depth insights into the therapies and prognoses in GC individuals.

Keywords: AFAP1L1, gastric cancer, prognosis, immune infiltration

Biography:

Yang Changjiang, is a doctor in the Peking University People's Hospital, majoring the mechanism of invasion and metastasis of colorectal cancer.

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MOHAMED AIMENE MELZI

Mohamed Aimene MELZI, Hanane AMMAR BOUDJELLAL, Souad MEDDAH, A. BOUAMRA, A. BOUNEDJAR
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Quality of Life Evaluation in Patients with Bone Metastasis in Algeria

Background:

Skeleton is a frequent metastatic site. Bone metastases are associated with complications that can deteriorate of patient's quality of life. The QLQ C30 is a validated instrument to measure the quality of life of patients under chemotherapy. **Objective:**

The aim of this study is to evaluate the quality of life in Algerian patients with bone metastasis.

Methods:

We interviewed bone metastatic cancer patients receiving chemotherapy at the medical oncology department of the Anti-Cancer Centre of Blida- Algeria to evaluate their quality of life. The EORTC QLQ_C30 version 3.0 questionnaire (Arabic translated version). Information regarding the medical conditions of the patients were collected from patients' medical source documents.

Results:

115 patients accepted to complete the assessment. The median age was 59.7 years. 53.9% of the patients were females. Breast cancer, the most frequent primary tumour site, found in 42.1% of patients. Vertebral column was the most frequent metastatic bone sites, present in 54.8% patients. The Cronbach's alpha was 0,878. The median score for the global health status was 50%, and only 5.2% of patients had a score of 100%. The median scores for physical functioning, role functioning, emotional functioning, cognitive functioning and social functioning were 60%, 33.3%, 66.7%, 83.3% and 66.7% respectively. Median scores of 66.7% for fatigue, 16.7% was found for nausea and vomiting, 50.0% for pain, 33.3% for dyspnoea, insomnia, appetite loss and constipation, 0% for diarrhoea and 66.7% for financial difficulties.

Conclusion:

The assessment of the quality of life of cancer patients provides information about symptoms and their impact on the patient's daily life. This information should be used to adjust symptomatic and supportive treatments to improve overall patient comfort.

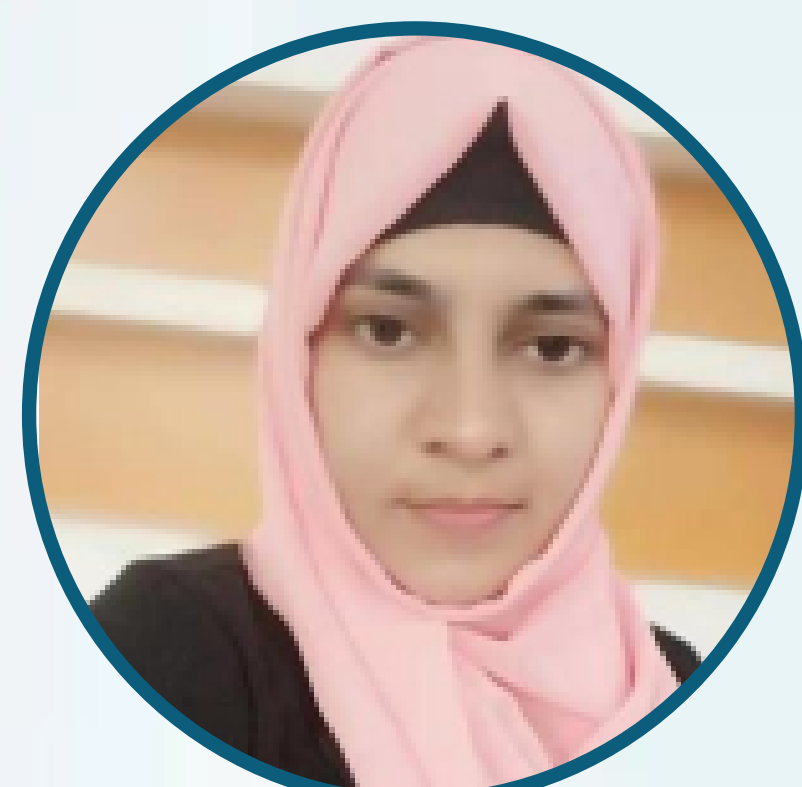
Keywords: Quality of life, bone metastasis, cancer, chemotherapy, QLQ_C30.

Biography:

Doctor Mohamed Aimene MELZI, is an assistant professor at the faculty of medicine of the Blida University 1 and a medical oncologist at the medical oncology department of the anti-cancer center of Blida. He is a cofounder and a member of the executive board of the Algerian Society of Training and Research in Oncology (SAFRO) and a member of the oncology team at the Cancer Laboratory of Blida.

4TH INTERNATIONAL CONFERENCE ON CANCER SCIENCE AND RADIOLOGY

MARCH 15-16, 2023 | (Hotel Crowne Plaza Dubai - Deira)



SUNDUS SHUKAR

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Experience of pharmacists with anti-cancer medicine shortages: results of a qualitative study

Pakistan is currently experiencing anti-cancer drug shortages. This study aimed to examine the current situation of anti-cancer drug shortages in Pakistan, its determinants, impacts, adopted mitigation strategies, and proposed solutions. Qualitative semi-structured, in-depth interviews were conducted with 25 pharmacists in oncology hospitals in Pakistan from August to October 2021. Data was collected in person and online. All interviews were recorded and subjected to inductive thematic analysis after being transcribed verbatim. Most participants experienced anti-cancer drug shortages that increased during the pandemic. Etoposide, paclitaxel, vincristine, dacarbazine, and methotrexate were frequently short. The important causes were the compromised role of regulatory authorities, lack of local production, and inventory mismanagement. The impacts were delayed/suboptimal treatment and out-of-pocket costs for patients, patients' prioritization, increased workload, negative work environment and patients' trust issues for pharmacists. Few proactive and counteractive actions were used to manage shortages. The participants proposed that a vigilant regulator's role is needed to revise policies for all stakeholders, support manufacturers for local production of anti-cancer drugs, their raw materials, and other stakeholders financially at their level to increase access to these medicines. Moreover, increasing communications among stakeholders, managing inventory appropriately, and increasing research studies on cancer are also recommended. Based on outcomes, anti-cancer medicine shortages are a current issue in Pakistan. The governmental authorities need to play a vigilant role to revise policies for all levels of the drug supply chain, allocate incentives for stakeholders, establish a cancer registry, drug shortage platform and promote local production of oncology drugs and more research studies. The stakeholders should collaborate and manage inventory appropriately.

Keywords: Anti-cancer, medicine shortages, oncology medicine shortages, essential medicine shortages, chemotherapeutic shortages

Biography:

Sundus Shukar, from Pakistan. I am a pharmacist by profession with two years of work experience in hospital and community setup. I am very passionate to work on cancer especially, cancer drug policies, drug utilization and cancer registries

4TH INTERNATIONAL CONFERENCE ON CANCER SCIENCE AND RADIOLOGY MARCH 15-16, 2023 | (Hotel Crowne Plaza Dubai - Deira)



ADITYA MANNA

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Hope For People Living With Metastatic Breast Cancer.

Introduction:

As in any developing countries state of West Bengal in India has a huge burden of metastatic breast cancer patients in advanced stage coming from rural area where awareness regarding the usefulness of palliative care is rather poor. Our goal is to give a pain free good quality of life in these advanced stage breast cancer patients.

Method:

Advanced breast cancer patients in need of palliative care in various villages in of rural India were selected for this study. Their symptoms and managements in that rural surroundings were evaluated by an NGO (under the guidance of oncologist and palliative care specialist) working in that area. An attempt was made to identify the main obstacles in getting proper palliative care in a rural setting.

Results:

Pain, fatigue are the main symptoms effecting these patients. In most patients pain and other symptoms control were grossly inadequate due to lack of properly trained manpower in the rural India. However regular homecare visits by a group of social workers were of immense help in the last few months of life. NGO team was well guided by a palliative care specialist.

Conclusion:

There is a wide gap of trained manpower in this filled in rural areas of India. Dedicated groups from rural area itself need encouragement, repeated home visit, awareness built up, proper training to home care giver, so that difficult symptoms can be managed locally along with necessary social and psychological support to these patients.

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