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453P Relationship between Interleukin-6 Levels (IL-6) and COVID-19 vaccination status in cancer patients at Dr. Moewardi General Hospital, Indonesia

R.A. Hutabarat1, W. Soewoto2
1General Surgeon Moewardi General Hospital, Medical Faculty of Sebelas Maret University, Surakarta, Indonesia; 2Oncology Moewardi General Hospital, Medical Faculty of Sebelas Maret University, Surakarta, Indonesia

Background: In terms of the clinical outcome and bad prognosis of cancer, the elevation in IL-6 levels is correlated with disease progression. It is believed that the post-vaccination effect increases the levels of IL-6 antagonists, which can slow the growth of cancer cells.

Methods: This research was conducted out on all cancer patients at Dr. Moewardi General Hospital using an observational analytic research design with a cross-sectional study, with a total sample of 120 patients who were divided into groups that had and had not received vaccination. IL-6 levels were measured using blood samples. To identify the correlation between IL-6 levels and COVID-19 vaccination status, we did descriptive analysis and the Chi-square test to examine the data results.

Results: There were 120 respondents in total, which all were processed for the analysis, out of 99 respondents who had full vaccination records. Then, 21 respondents who did not complete their vaccination status or receive the vaccine. Breast cancer is the most common cancer type in this population, which consists of 80 women and 40 men. Therefore, 59 respondents were female, whereas 61 respondents had normal levels. Findings of the research showed no statistically significant relationship between IL-6 levels and vaccination status (p>0.05).

Conclusions: IL-6 levels were used to analyze the relationship between vaccination status and cancer progression, and it was shown that participants who had received immunizations had no more impact on IL-6 levels than those who had not.

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454P To study the prevalence of lower limb deep vein thrombosis in patients who present with stage III/IV solid tissue malignancies in Indian patients

O. Suri, P. Tiwari, P. Mandal, I. Khan
Medical Oncology, Artemis Hospital Gurugram, Gurugram, India

Background: Deep Vein Thrombosis and Pulmonary Embolism have been associated with significant morbidity and mortality worldwide. The risk of developing lower limb Deep Vein Thrombosis may be associated with cancer-related, patient, and treatment-related risk factors. Although the association between cancer and venous thromboembolism is well known, there is a paucity of information in Asian patients with cancer.

Methods: This prospective, observational study was conducted at Artemis Hospital, Gurugram, India; a tertiary care center. A total of 100 patients were enrolled in the study. On Duplex Doppler Venous ultrasound, the prevalence of lower limb deep vein thrombosis was 14%. An adjusted multivariable regression analysis showed that advanced stage (p=0.008), leukocytosis (p=0.042), OR(1.0,95% CI(1.01,1.2), deranged coagulation profile (Raised APPT, PT:0.01,OR(1.0),95% CI(1.4,2.679) hypercholesterolemia(0.38,OR(1.0),95% CI(1.004,1.05)) were independent predictors of Deep vein Thrombosis. The highest prevalence of venous thromboembolism was for pancreatic (2%) and lung cancer (2%).

Conclusions: Cancer-related thrombosis has to bear in treatment outcomes as well as morbidity and mortality. Routine lower-extremity Venous Doppler Ultrasonographic screening is useful for early detection and management at an initial evaluation of stage III/IV solid malignancies. There is a paucity of data on Indian patients. This is the first study conducted in the Indian subcontinent that has identified high-risk factors and prevalence of venous thromboembolism. Such study design will help us in formulating national-level guidelines for prophylaxis of cancer-associated thrombosis.

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455P Succinate dehydrogenase deficient GIST: Case series and review of literature from a tertiary care centre in India

A. Santhosh1, S. Rastogi2, S. Ahmed Shamim3, R. Yadav2, A. Barwad1, N.R. dash4
1Medical oncology, AIIMS, New Delhi, India; 2Nuclear Medicine, AIIMS - All India Institute of Medical Sciences, New Delhi, India; 3Pathology, AIIMS - All India Institute of Medical Sciences, New Delhi, India; 4Gastroenterology, AIIMS - All India Institute of Medical Sciences, New Delhi, India

Background: Around 5-10% of GIST lack driver mutations (KIT, PDGFR alpha) and are deficient in succinate dehydrogenase. Succinate Dehydrogenase deficient GISTs are unique in the fact that they occur predominantly in the younger population, are multifocal and generally resistant to imatinib. Surgical intervention is a stay but recurrence is common. Data regarding SDH deficient GIST from India is very sparse.

Methods: This is a retrospective study of patients with SDH deficient GIST who presented to the sarcoma GIST clinic in All India Institute of Medical Sciences, New Delhi, India from 2016-2022. 9 out of 120 GIST patients (7.5%) were SDH deficient. All patients were discussed in sarcoma/GIST tumor board and pathologies were reviewed by dedicated sarcoma/GIST pathologist. Data was collected retrospectively from prospectively maintained database.

Results: There were 9 patients with median age of 48 years (range 15-63), of which there were 5 males (n=5, 55.5%). 8 patients (n=8, 88.8%) had primary in stomach, 1 had duodenal GIST. In stomach, body was the most common location (n=6,75%). 3 patients had metastatic disease. 8 out of 9 (88.8%) had metastasis at presentation. Most common site of metastasis was liver (7 out of 8, 87.5%) lymph node involvement was present in 4 out of 9 patients (44.4%). One patient had classical Carney triad at presentation. 8 out of 9 (88.8%) had epithelioid morphology and 1 (11.1%) had mixed epithelioid-spindle picture. 5 out of 9 (55.5%) patients had germline SDH mutations. Out of 9 patients, 1 was put on observation post surgery and therapy was given for 8 patients(n=8,88.8%). None of the 8 patients responded to imatinib, 3 out of 5 patients (60%) had response with sunitinib, 3 were started on regorafenib out of which 1 had partial response and 1 patient had partial response with temozolamide. Median overall survival was NR- not reached (95% CI 12.96-NR).

Conclusions: Majority of patients with SDH deficient GIST had advanced disease and most of them were in stomach and had epithelioid morphology. We had male preponderance as compared to literature and higher age. Also there was poor response to first-line tyrosine kinase inhibitors like imatinib. Based upon this data we have incorporated SDH IHC upfront in all cases similar to CAP guidelines.

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456P Outcomes of COVID-19 infection in cancer patients: A single center study

S. Sindhu1, A. Raghava K S2, S.C. Bala3, R. Chennamaneni1, M.L. Konatam1, S. Gundeti1
1Medical Oncology Department, NIMS - Nizam's Institute of Medical Sciences, Hyderabad, India; 2Medical Oncology Dept., NIMS - Nizam's Institute of Medical Sciences, Hyderabad, Andhra Pradesh, India; 3Medical Oncology Department, NIMS - Nizam's Institute of Medical Sciences, Hyderabad, Andhra Pradesh, India

Background: Patients with cancer may be at increased risk of severe COVID-19 infection with severe disease and higher mortality rate. This can be attributed to the weaker immune system as a consequence of the malignancy and its treatment. The present study was undertaken to estimate the rate of COVID-19 infection in cancer patients of NIMS, Hyderabad from March 2020 to February 2022.

Methods: All patients who were diagnosed with cancer and receiving anticancer treatment on outpatient basis or admitted for anticancer treatment and diagnosed with COVID-19 infection were analysed. The severity of COVID-19 infection was made according to World health organisation guidelines. The study period was between March 2020 and February 2022.

Results: A total of 4420 patients were seen between March 2020 and February 2022, of which 4.1% (n=184) were diagnosed to have COVID-19 infection. The median age was 46 years (range, 5-76). Male to female ratio was 1.5:1. The incidence was more common in the second wave (46.7%) compared to first (32.6%) and third wave (20.6%). Patients with hematological malignancies (70.6%) were infected more than those with solid tumors (39.4%). Most common presentation was fever (79.3%), followed by cold (47.2%) and cough (39.6%). Around 75% (n=138) patients had mild illness, moderately severe illness and severe illness were seen in 15.2% (n=28) and 9.79% (n=18) respectively. Thirty seven percent (n=68) patients responded to hospitalizations of which 52% (n=36) required oxygen supplementation and treatment with Remdesivir. Mortality attributed to COVID-19 was seen in 3.8% (n=7) patients of which non-
Background: Interleukin-6 (IL-6) is a cytokine with multifaceted effects playing a remarkable role in the initiation of the immune response. IL-6 also represents one of the main signals in communication between cancer cells and their non-malignant neighbors within the tumor niche. IL-6 also participates in the development of a premetastatic niche and in the adjustment of the metabolism in terminal-stage patients suffering from a malignant disease. IL-6 is a fundamental factor of the cytokine storm in patients with severe COVID-19, where it is responsible for the fatal outcome of the disease. This study aims to determine the effect of IL-6 in patients associated with cancer and COVID-19 infection.

Methods: Case control studies were conducted in Moewardi hospital, Surakarta, Central Java, from February to June 2022. Samples were taken from medical records. All patients with cancer and COVID-19 infection were included. Incomplete data is excluded. Therapy was categorized as hormonal therapy, chemotherapy, and evaluation. Mann Whitney was performed to investigate the average difference. The P-value of <0.05 is significant.

Results: We included 130 patients with cancer and SARS-CoV-2 infection, and 23 patients for the control. We included the total sample of 153. The median age was 50 ± 13 years. The most frequent kind of cancer was breast cancer (n=59, 38.6%) followed by gastrointestinal cancer (n=25, 16.3%), non hodgkin lymphoma (n=21, 13.7%) and other cancers such as hematological malignancy, thyroid cancer, squamous cell carcinoma, and parotid cancer (n=23,15%). A total of 95 patients received active treatment, with hormonal therapy (n = 8, 0.08%) and chemotheraphy (n = 87, 91.57%) of them. The median of IL-6 was 6.80 ± 23.66. There are significant differences of the IL-6 between COVID-19 patients with cancer compared with the control (p<.0001).

Conclusions: The high level of IL-6 in a patient’s body are influenced by cancer progression and serious viral infections such as COVID-19. Interleukin-6 may be responsible for the failure of therapy and, eventually, fatal complications in patients with cancer and COVID-19.

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458P
A real-world depiction of difficulties in applicability of IO regimens into clinical practice in metastatic setting

S. Chandra Geteti
Medical Oncology Department, Medcouver Cancer Institute, Hyderabad, India

Background: Overall survival across various cancers in metastatic setting has been on the rise with the advent of immunotherapy. Indications include chemo-immunotherapy, immunomodulated therapy and immunotherapy alone basing on the approvals across various lines in particular organ type. However, applicability of the same into real world practice has been dismal in low and middle income countries due to various reasons. Data is lacking in this setting.

Methods: We conducted an observational study at our center to see applicability of IO indications across different metastatic cancers. Consecutive patients between Jan 2018 and Feb 2022 who had metastatic cancer and an indication for IO usage were enrolled and their treatment regimens studied. Patients across different primary sites were included with approved IO regimen. Reasons for non-usage of IO were studied.

Results: Between Jan 2018 and Feb 2022, 464 patients were enrolled who were eligible for treatment with IO either as a single agent or as combination in metastatic setting. The most common indication was NSCLC (21.9%), head & neck (21.1%), RCC (7.7%), bladder (9.4%), endometrium (9.4%), gastric (9%)/HCC (8.1%), Hodgkin lymphoma (3.8%), melanoma (3%)/SCCLC(3%) and so on. Of 464 patients, only 138(25.7%) were finally treated with IO regimen across different lines. The reasons for non-usage were financial constraints (76.3%) which included exhaustion of insurance limit followed by denial by insurance company (18%), non-availability of drug (3.4%) and contraindication to IO(2.3%). Of the 138 patients who were treated, 32.4 % had to withdraw the drug owing to financial toxicity while the disease was still responding with the median time to withdrawal being 5.8 months.

Conclusions: This observational study portrays a real world picture of difficulties faced in using approved IO regimens in metastatic setting with financial constraints leading to non-usage/withdrawal of drug in nearly 62 % patients. There is an urgent need to address this financial toxicity to benefit more patients with IO agents in lower middle income countries like India.

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