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ARTERIAL THROMBOEMBOLISM AS A RARE PARANEOPLASTIC MANIFESTATION OF CARCINOMA LUNG

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INTRODUCTION- Cancer patients have a higher incidence of venous thromboembolism (VTE), including pulmonary embolism (PE) and deep venous thrombosis (DVT), compared to the general population.[1] Nonsmall cell cancer lung have a known association of venous thrombosis with higher risk with advancing disease and postchemotherapy. Obese Patients with presenting anaemia, leucocytosis, higher platelet count and lung cancer associated have higher risk for venous thrombosis as per khorana scoring .[2] Patients usually present with myocardial infarction or stroke when deadily venous thrombosis occur as a sequlae of carcinoma. We discuss an asymtomatic case of Female with no past history of cancer association but was diagnosed after the presentation of mesenteric arterial thrombosis.

Case report-

39 years old married female with nil significant past history of cough, breathing difficulty presented with complaints of pain abdomen since 06 months. Pain was more in epigastric region, dull aching, not associated with nausea/vomiting, no aggravating/relieving factors, not associated with abdominal distension, yellowish sclera, dark color urine and altered urine frequency. There was h/o unintentional, unquantified weight loss. Patient was initially managed as a case of Acute Gastritis but had no relief. When patient reported to our hospital, on initial examination patient had tachypnea, tachycardia, epi gastric and left upper quadrant tenderness.

On evaluation complete haemogram , Liver function tests and renal function tests were normal limits. Chest X-ray showed right peri-hilar mass. Urine pregnancy test was positive although serial serum beta HCG showed a declining trend with no sign of intrauterine pregnancy on ultrasonography.

Abdominal scan showed distal SMA thrombosis. It was further evaluated on CECT chest and abdomen showing sign of Irregular lobulated Right perihilar lesion extending into Right hilum with peripheral calcification and Irregular lobulated partly calcified modular lesion in basal segment of Right lung. Acute SMA thrombosis

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sparing the origin with minimal ischemia in small bowel loops was identified. Patient was further evaluated on PET CT and found to have increased FDG uptake pleural pulmonary lung mass. CT guided lung biopsy from Right lung Mass on HPE showed Non small cell carcinoma of lung with diagnosis of adenocarcinoma.

CK-7 positive, TTFI- weakly focal positive, NSE- positive and pro coagulant work up including APLA, anti-cardiolipin antibody, Factor V Leiden mutation, homocysteine levels were normal. Echocardiography on routine workup showed sign of pulmonary vein clot and left atrial clot .Patient was being managed as a case of lung Carcinoma with arterial thrombosis by chemotherapy, immunotherapy, anticoagulants and other supportive care.

Later after one month of hospitalization she started having deterioration with hemiplegia which was investigated by MRI Brain that showed Multiple area of altered signal intensity in both cerebral hemispheres, in Right middle and inferior frontal gyri, Right bilateral precentral gyri and Left anterior insular cortex. Then she developed respiratory distress and was intubated and put on mechanical ventilator.

Discussion –

Tumor cells are known to have procoagulant properties by activation of clotting cascade along platelet, neutrophil, thrombin and fibrin stimulation.[3] Thromboembolism present in majority of patients as painful edema of superior and inferior extremities as observed by trousseau et al. [4]

Arterial thrombosis have a rare incidence of 0.25% presenting mostly as acute myocardial infarction or ischemic stroke in cancer patients. [5] Other arterial thrombosis have rare reported incidence of 0.2% greater in prostate cancer than lung cancer. Our patient presented to us with superior mesenteric artery thrombosis which was managed with low molecular weight heparin. Later on in course of disease she developed middle cerebral artery thrombosis stroke leading to hemiplegia after one month of hospitalization.

As per reported data, elderly females with black origin and metastatic disease are found to have more venous embolism than arterial.[6] Major peripheral arterial embolism have been reported following lung tumor resection [7] but our patient had no primary diagnosis of cancer lung prior to presentation of abdominal pain. Similar rare presentation of case of bowel ischemia requiring resection have been reported by Togo et al with primary cancer found to be lung cancer. [8] This patient had an atypical presentation of pain abdomen with urine pregnancy test positive which was ruled out by absence of Gsac on USG and lung tumor was an incidental finding on CECT abdomen and chest. Cancer cells of epithelial origin are found to have false positive beta HCG pregnancy test. [9]

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Conclusion - Carcinoma can have variety of atypical presentation and symptoms in undiagnosed cases. Vigilant monitoring of symptoms and necessary investigation are required for better management and diagnosis . Caution should be adopted for these fatal thromboembolic events in diagnosed carcinoma patients so as to have better outcome .

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