Gastric cancer therapy induced tumor lysis syndrome

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Tumor lysis syndrome (TLS) is an oncologic emergency, characterized by metabolic and clinical derangements, caused by spontaneous or chemotherapy induced death of tumor cells. TLS, though common with hematological malignancies is rare in solid tumors. Here, we present a case of a young woman with advanced gastric cancer who developed TLS following one cycle of chemotherapy. A 47 year old woman with family history of breast cancer presented with shortness of breath, abdominal pain and poor appetite. Physical examination was significant for diminished breath sounds and abdominal distension. CT scan revealed large right pleural effusion, 7 x 4.5 cm heterogeneous mass in the left lobe of liver, omental thickening and caking with nodularity in the left upper abdomen. MRI of abdomen was negative for adnexal masses. Thoracentesis revealed adenocarcinoma (CK7, MOC31 and Calretinin positive). With an empiric diagnosis of peritoneal carcinomatosis with unknown primary, one cycle of carboplatin and paclitaxel was administered. Patient developed nausea/vomiting with oliguria after chemotherapy. Laboratory analysis was significant for elevated kidney function testing (KFT) with hyperuricemia, hyperkalemia, hyperphosphatemia and hypocalcemia. Renal ultrasound revealed increased bilateral cortical echogenicity. Chemotherapy induced tumor lysis syndrome was diagnosed and patient received aggressive fluid resuscitation with sodium bicarbonate, rasburicase. As KFT worsened, hemodialysis was initiated. Serum electrolytes improved after 2 weeks of hemodialysis sessions. An EGD and biopsy was performed, which was positive for gastric adenocarcinoma. Before further testing, patient chose hospice care. This case highlights that TLS can occur in solid tumors with therapy. Prompt recognition and management improves clinical course.

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