A rare case of hypercalcemia and malignancy in an adolescent female

Shreepada Tripathy and Neil Patel
Southern Illinois University, USA

Case Presentation: We present the case of a 15 year old female that presents with a 2 month history of an abdominal mass and hypercalcemia. Her physical exam was significant for an abdominal mass which was occupying both lower quadrants, but no other findings. Labs were remarkable for a calcium of 14.2 mg/dL, phosphorous of 3 mg/dL, PTH was 6.1 pg/mL (normal range 8-77), Vitamin 25-OH D level was 27.2 ng/dL (normal 25-80), Vitamin 1,25-OH D level was 283 pg/dL (normal 19-83) and PTH-rP was 20 pg/mL (normal range 14-27). An abdominal MRI was significant for a 17.5×13×11.2 cm heterogeneously enhancing pelvic mass. She underwent an exploratory-laparatomy with extraction of the mass. Pathology showed a mixed malignant germ cell tumor with 50% yolk sac tumor and 50% dysgerminoma. After surgery, labs normalized to physiologic ranges. She was then discharged home.

Discussion: Ovarian neoplasms account for ~1% of malignancies in pediatrics. Ovarian cancer is the most common gynecologic malignancy in women ≤25 years of age and germ cell is the most common histology. Among malignant ovarian germ cell tumors, dysgerminomas are present 32.8%, yolk sac tumors are present 14.5% and mixed germ cell tumors are present 5.3%. It should be noted that among mixed germ cell tumors, the most common components are dysgerminoma and yolk sac tumor. The most common cause of hypercalcemia is hyperparathyroidism but this was not the case here. Her tumor was producing 1α-hydroxylase, which caused her electrolyte derangements.

stripathy55@siu.edu