Hypercalcemic Crisis Secondary to a Parathyroid Hormone Secreting Neuroendocrine Ovarian Tumor

<u>Dr James Paningbatan</u>¹, Dr. Thelma Crisostomo¹ ¹Makati Medical Center, Makati City, Philippines

A 45 year old woman, was transferred to our institution due to five days history of increasing weakness, lethargy, fever, disorientation and incoherence after falling out of bed.

Patient was seen weak, delirious and febrile. There was note of a palpable, firm, nontender hypogastric mass. Chemistry showed severe hypercalcemia (17.24 mmol/L), hypokalemia (3.3mg/dl), low Mg (1.22 mg/dl), and elevated Creatinine (1.52 mg/dl). Repeat calcium showed hypercalcemia (16.6 mmol/L). Measurement of the PTH revealed a markedly elevated intact PTH (306.7 pg/ml). Patient was hydrated adequately, was given Calcitonin, Cinacalcet and underwent hemodialysis. Ultrasound of the neck and thyroid was negative. Sestamibi scan was negative for a parathyroid adenoma. CT scan of the whole abdomen showed a heterogeneously enhancing foci within the uterine wall 2.8 x 5.2 cm in the posterior wall and 1.8 x 2.5 cm in the anterior wall; a 2.9 x 2.4 cm hypoenhancing focus in the cervical region. There were heterogeneously enhancing masses noted in the bilateral hemipelvis. The patient underwent extrafascial hysterectomy, bilateral salpingooophorectomy, bilateral lymphadenectomy, omentectomy. PTH level was monitored preoperatively (326.89 pg/ml), 6 hours post op (78.375 pg/ml) and 24 hours post op (77.0 pg/ml). Histopathologic diagnosis was a large cell neuroendocrine carcinoma involving the right and left ovary with metastasis to the myometrium; well differentiated endometrial adenocarcinoma. Post operatively, patient started chemotherapy with Carboplatin and Paclitaxel.

Conclusion: These results support the ectopic production of intact PTH by a neuroendocrine tumor and indicate a rare neoplastic cause of hyperparathyroidism.