PARATHYROID CARCINOMA: AN ATYPICAL CASE IN A PATIENT SUBMITTED TO BARIATRIC SURGERY

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BACKGROUND: Parathyroid carcinoma accounts for less than 1% of cases of primary hyperparathyroidism. Clinical presentation is usually related to severe hypercalcemia associated to elevated serum PTH (three times above the upper limit). These values are so much higher than in primary hyperparathyroidism due to a benign adenoma. Moreover, 30-75% of patients usually have a palpable neck mass at presentation.

CLINICAL CASE: A 51-year-old male was admitted to our hospital because of an acute respiratory failure when a right cervical mass was discovered.
His medical history only revealed he had been submitted to bariatric surgery by a biliopancreatic diversion (Larrad's technique) in 2002. He left treatment and follow-up at Nutrition Department.
CT showed a tracheal deviation caused by a 7 cm cervical mass depending from the right thyroid lobe (Figure 1).
FNA was suspicious for a follicular neoplasm with Hürthle cells.
Reviewing analysis he had many normal calcium values, chronic hypophosphatemia and very high intact PTH with values above 500 pg/mL, normal range 9-70 (Table 1) thus a parathyroid adenoma was suspected.
Surgery was performed including a total thyroidectomy and a cervical exploration looking for any parathyroid adenoma.
Histological examination revealed a parathyroid carcinoma of 7.8 cm x 4.6 cm x 3.3 cm and one-gland hyperplasia (Figure 2). Patient developed a hungry bone syndrome with high needs of calcium and calcitriol. 25OHvitamin D was undetectable and post-surgical PTH was 178.5 pg/mL.

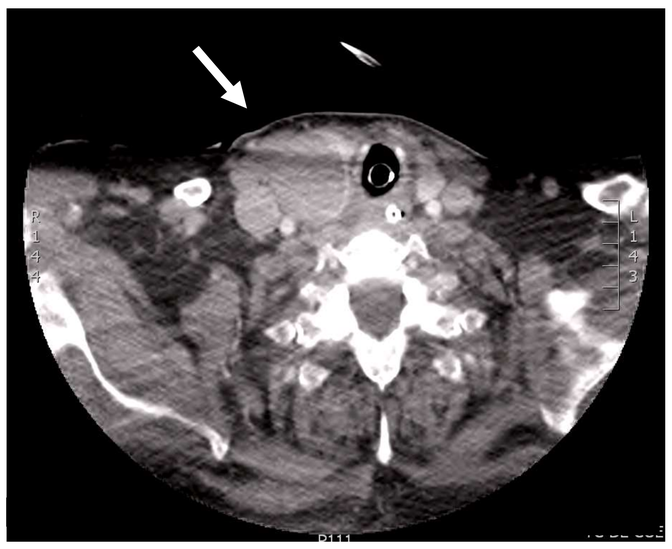

Figure 1. Cervical CT scan

Table 1

Date	Calcium (mg/dL) Normal: 8.5-10.8	Phosphorus (mg/dL) Normal: 2.5-4.8	PTH (pg/mL) Normal: 9-70
2007	10.6	1.5	539
2009	10.5	2	
2011	10.3	1.4	
2012	10.2	1.2	1471

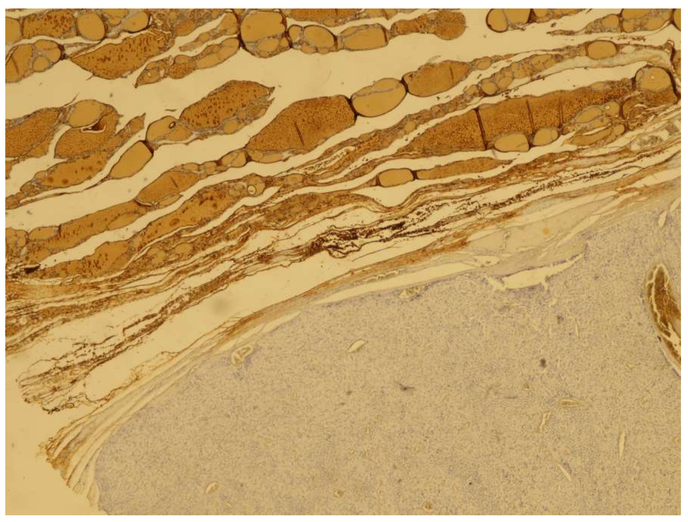

Figure 2: Tumoral negativity with thyroglobulin immunostaining and positivity of adjacent thyroid parenchyma. 40 x

CONCLUSION: Usual form of presentation of parathyroid carcinoma is severe hypercalcemia. However, our patient had a normocalcemic hyperparathyroidism. Absence of hypercalcemia despite of such very high PTH levels is explained by a malabsortive bariatric procedure that excluded duodenum and first part of jejunum conditioning a chronic malabsortion of calcium and vitamin D.