

Giant parathyroid adenoma extending into the mediastinum: a case report.

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Introduction

85% of cases of primary hyperparathyroidism are caused by a parathyroid adenoma¹. These are usually small in size, in the range of 70mg to 1g. Those weighing more than 2g are classified as “giant adenomas”². Few adenomas weighing more than 30g have been described in the literature. Here we present one such case, an example of one of the largest parathyroid adenomas ever reported.

Case Report

A 52 year old female presenting with lethargy was found to have a corrected calcium of 3.15mmol/L with a parathyroid hormone of 122.5pmol/L. Imaging of the parathyroids was performed. Sestamibi scanning [figure 1] demonstrated a large area of high uptake, not typical of a parathyroid adenoma. Computed tomography [figure 2] revealed a mass, 9cm in maximum dimension, extending from the inferior pole of the right lobe of the thyroid to the right side of the mediastinum, and into the subcarinal area. Endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) of this mass showed acinar structures, morphology and phenotype favouring parathyroid adenoma. This was confirmed histologically after surgical removal of a large single parathyroid adenoma, weighing 92.7g, under the joint care of maxillofacial/cardiothoracic surgical teams. Bisphosphonate treatment was required to control calcium levels (which rose to 3.8mmol/L) pre-operatively. The patient experienced post-operative hypocalcaemia, requiring calcium infusion, high dose oral calcium supplementation and alphacalcidol treatment.

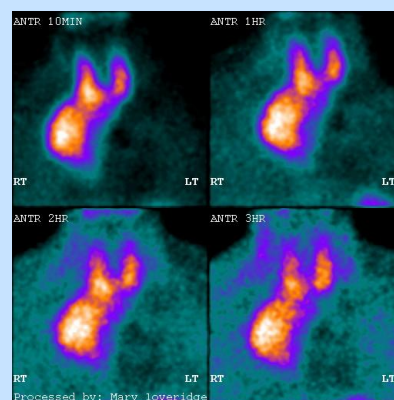
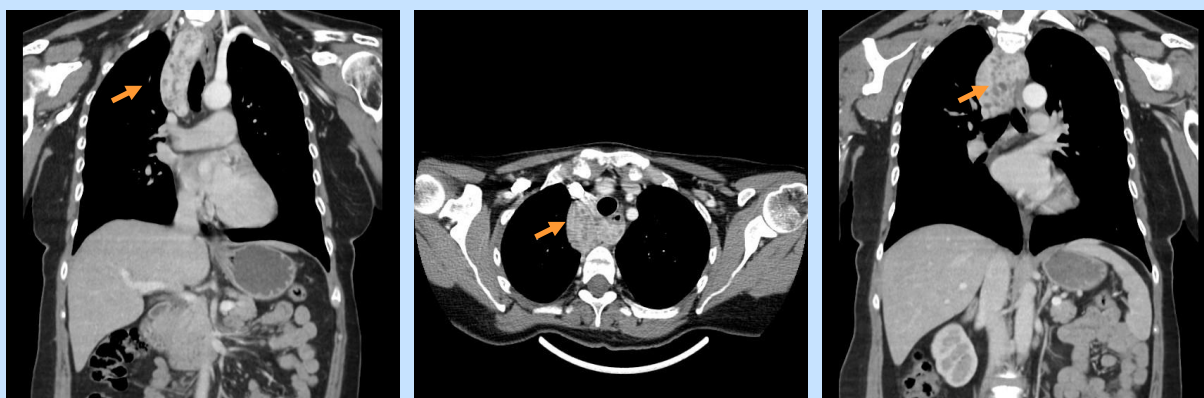


Figure 1: Sestamibi Scan

Figure 2: Computed tomography



Discussion

This case is one of the biggest giant parathyroid adenomas described, the largest described weighed 116g³. In general adenoma weight correlates with functional status of the gland³, only one case of a giant non-functioning adenoma has been reported⁴. Primary hyperparathyroidism is more common in women but there is relative male overrepresentation in cases of large adenoma³. Whilst malignancy does not appear to be more common in cases of giant parathyroid adenoma, such cases may represent a subset of parathyroid lesion with pronounced features of primary hyperparathyroidism and specific genomic aberrations³.

References

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