

Giant Retrosternal Goiter Extirpated Via Cervicotomy

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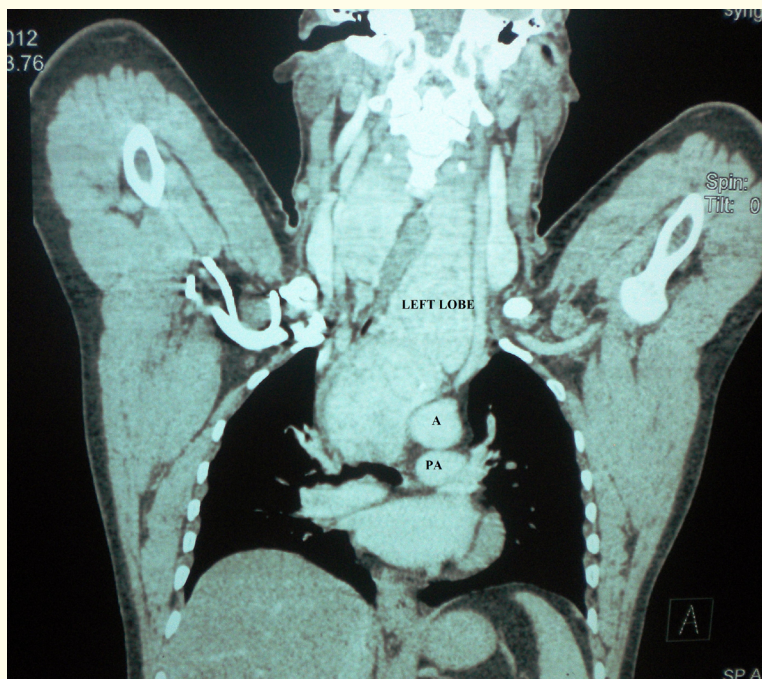
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Introduction

Substernal goiters are shortly defined as an extension of the goiter below the upper opening of the chest [1,2]. Albrecht von Haller in 1749 was first to describe this condition and considered this thyroid extension as a real preoperative challenge.

Image Presentation

In this image we discuss the case of A 55-year-old male patient, who presented with a giant goitre. The patient first noticed the goitre 20 years ago, which gradually progressed in size, with recent compressive symptoms. The goitre displayed multidirectional enlargement with left substernal extension. In the figure 1A: a coronal view of a CT scan of the neck and chest showed a huge retrosternal goiter in close contact with aorta and pulmonary artery. The left lobe described a particular cross over extension in the right side. In the transversal view of the CT scan (Figure 1B), the goiter was plunging in the posterior mediastinum with well-defined limits with vascular structures and compression of the right main bronchus. A thyroid hormone profile confirmed the euthyroid status. According to the classification of retrosternal goiters (grade 1: above the aortic arch, grade 2: aortic arch to pericardium, this case is grade 3 (below the right atrium) and needs full sternotomy. Therefore, a total thyroidectomy through cervicotomy was hard successful after a laborious dissection by fingers and tools of the plungeant part (Figure 1C) that allowed a safe separation between the different structures. Post-operative course was favorable a part from a transient hypoparathyroidism with good evolution.



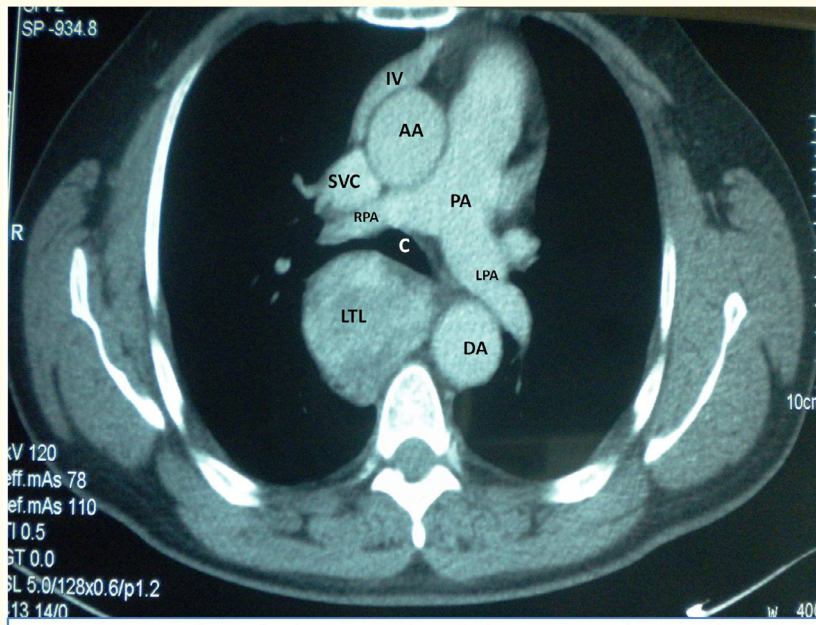


Figure 1B : Transversal view of a chest CT scan showed a huge retrosternal goiter in close contact with aorta and pulmonary artery (PA).
AA: ascendant aorta, C: carina, DA: descendant aorta, IV: inominate vein, LPA: Left pulmonary artery, LTL: left thyroid lobe, RPA: Right pulmonary artery, SVC: superior vena cava.



Figure 1A-1C: CT scan of the neck and chest showed a huge retrosternal goiter in close contact with aorta (A) and pulmonary artery (PA).

Comments

In the literature These goiters were more frequently pre vascular (73%) than retro vascular (27%) relative to the innominate vein [3].

Transthoracic approaches, such as median sternotomy and thoracotomy for retrosternal goiter (RG), provide a wide exposure and facilitate removal of the mass and avoid catastrophic results, such as hemorrhage, and allowed complete removal of malignancies [4]. There is no consensus about the predictive factors of sternotomy, in spite of several attempts, Burns, *et al.* performed a sternotomy in only 3/140 patients with RG and defined significant factors of sternotomy such as CT adherence to the surrounding mediastinal structures and extension of the goiter to or below, the aortic arch [5].

Conflict of Interest

No conflict of interest to declare.

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