

A rare giant tubercle of Zuckerkandl with retrosternal extension encountered during total thyroidectomy

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DESCRIPTION

Tubercle of Zuckerkandl (TZ) is an embryological remnant seen at the site of embryonic fusion of median and lateral anlagen of the thyroid gland. TZ is usually present in 50% of thyroidectomy specimens. The presence of TZ is considered a constant landmark for identification of recurrent laryngeal nerve (RLN) in the majority of cases.¹ TZ is graded according to the size of the tubercle: grade 1 (<0.5 cm), grade 2 (0.6–1 cm) and grade 3 (>1 cm).²

We present an extremely rare case of a very large TZ, termed giant TZ, extending into the posterior mediastinum, without retrosternal extension of the primary thyroid lobes. The TZ measured 8.2 cm in length (figure 1). It was seen extending into the mediastinum posterior to the RLN. The radiographic appearance of a widened retrovisceral space may be useful to detect enlarged TZ preoperatively (figure 2). It is not only the size of the enlarged tubercle that may cause widening of the prevertebral soft tissue space, but equally important, the location, either a complete retrotracheal or retrooesophageal extension.³ To the best of our knowledge, this is the first reporting of a giant TZ with a retrosternal extension. This entity is unusually rare and, if not recognised, could result in recurrent laryngeal nerve injury. Complete removal of this entity is essential; a total thyroidectomy can prevent residual thyroid tissue in the neck, which can be a source of recurrence of toxic goitres and thyroid malignancy if not adequately addressed.



Figure 2 Skiagram of the neck and upper chest showing (A) gross tracheal deviation to the left, (B) soft tissue shadow causing mediastinal widening due to the retrosternal extension of the giant tubercle of Zuckerkandl on the right.

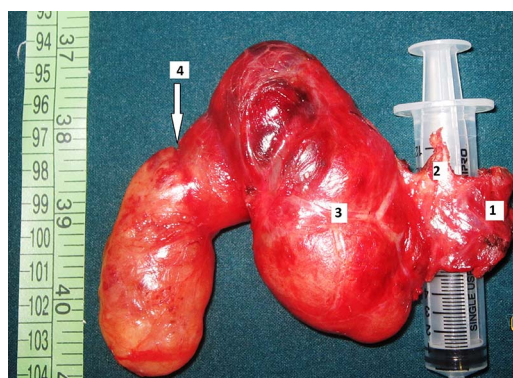


Figure 1 Operative specimen of total thyroidectomy showing (1) left lobe, (2) pyramidal lobe, (3) right lobe, (4) giant tubercle of Zuckerkandl, measuring 8.2 cm, arising from the right lobe, which was delivered from the mediastinum by a cervical approach.

Learning points

- ▶ Tubercle of Zuckerkandl is an important landmark for identification of recurrent laryngeal nerves during thyroidectomy, with around 90% of nerves coursing medial to the tubercle.
- ▶ These giant tubercles of Zuckerkandl can make the identification of the recurrent laryngeal nerves difficult.
- ▶ Recognising this rare entity of giant tubercle of Zuckerkandl moving retrosternally, will add to surgical acumen and patient safety.

Competing interests None declared.

Patient consent Obtained.



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