

# Ectopic Multinodular Goitre

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## ABSTRACT

**A 61-year-old man presented with a slowly enlarging lateral neck mass. There was no other associated ENT symptoms. Clinical examination was unremarkable. The pan endoscopy was normal. The mass when excised was found to be subplatysmal. The histology was that of a multinodular thyroid tissue. Subsequent investigations showed normally placed thyroid with multinodular changes.**

Laterally placed thyroid tissue have been reported since the 18th century. Initially, they were found to contain malignant tissue and hence the term lateral aberrant thyroid tumours. In later years, benign ectopic thyroid tissue was described in the lateral neck. It is now felt that ectopic thyroid tissue are derived from thyroid cell rests that have failed to fuse with the main thyroid tissue during development. They are subjected to the same goitrogenic stimulation as the normally placed thyroid tissue. Our case supports the view that not all laterally placed thyroid tissue are malignant.

**Keywords:** ectopic thyroid tissue, multinodular goitre

## INTRODUCTION

A 61-year-old Caucasian man presented to our department with a right neck mass which had been slowly enlarging over 18 months. He denied any dysphagia or respiratory distress.

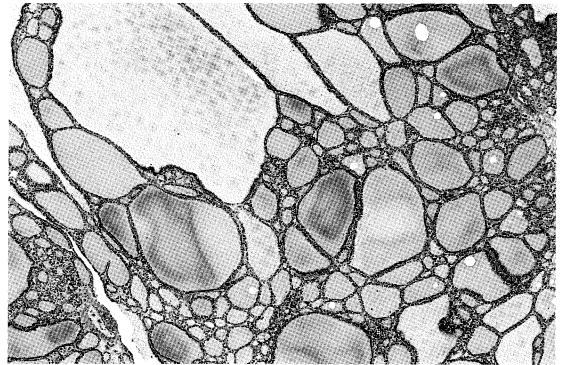
On physical examination, the patient's blood pressure was 110/70 mmHg with a resting pulse rate of 80 beats per minute. He was clinically euthyroid. A 3 cm smooth mobile well-circumscribed mass was found in the right upper cervical neck under the platysma. The thyroid gland was not palpable and no other cervical mass was found. A full ENT including posterior rhinoscopy examination was unremarkable. The precise nature of the mass could not be determined clinically, but it was felt that it was unlikely to be a metastasis.

Laryngoscopy, oesophagoscopy and examination of the post nasal space did not reveal any abnormalities. Excision of the mass was performed under the same anaesthetic in view of the normal endoscopy. A subplatysmal mass measuring 4 x 3.5 x 2.8 cm was removed.

Macroscopically, the cut surface showed a nodular tan appearance. Microscopic examination revealed thyroid tissue with a multinodular

appearance (Fig 1). There was no atypia or vascular invasion. The overall appearance suggested the mass to be a multinodular goitre.

Post-operatively, the patient's recovery was uneventful. Thyroid function subsequently performed were within normal limits. A <sup>99m</sup>Tc technetium pertechnetate scan demonstrated a functioning thyroid with a patchy uptake which was consistent with multinodular changes. Neither discrete hot nor cold nodule was seen.



**Fig 1** – The photomicrograph shows a thyroid tissue with a multinodular appearance. There is no evidence of atypia or vascular appearance.

## DISCUSSION

Ectopic thyroid tissue is usually found in the midline along the path of descent of the thyroid gland. It has been described in the tongue<sup>(1)</sup>, larynx<sup>(2)</sup>, trachea<sup>(3-5)</sup>, oesophagus<sup>(6)</sup>, mediastinum<sup>(7)</sup> and heart<sup>(8)</sup>.

Thyroid tissue has also been reported in lateral neck since the 18th century<sup>(9, 10)</sup>. Most of the early cases reported contained malignant thyroid tissue which prompted the term lateral aberrant thyroid tumours. Clay and Blackmore<sup>(11)</sup> and Maceri et al<sup>(12)</sup> attributed these to metastatic deposits of primary thyroid carcinoma while others felt that these were primary tumours of aberrant thyroid tissue<sup>(13)</sup>.

Benign ectopic thyroid tissue situated in the carotid sheath has been reported by Block et al<sup>(14)</sup> and Watson et al<sup>(15)</sup>. They proposed that the deposits were derived from thyroid cell rests that have failed to fuse with the main thyroid gland during embryological development and questioned the view that lateral aberrant thyroid tissue was always malignant. Our case report supported this observation. Over time, the ectopic thyroid tissue was subjected to the same goitrogenic substances as the normally placed thyroid

gland. This can lead to concurrent multinodular changes in the thyroid gland and the ectopic thyroid tissue. What is unusual in this case is the subplatysmal location of the ectopic tissue. Most of the reported cases of lateral ectopic thyroid tissue are found in a deeper plane usually around the carotid sheath.

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