

Benign thyroid adenoma causing recurrent laryngeal nerve palsy in a child

SHERIF HABASHI, F.R.C.S. (Manchester)

Abstract

The standard teaching is that only malignant thyroid masses produce recurrent laryngeal nerve palsy. An unusual exception to this rule is reported.

Introduction

A shy 11-year-old girl with dysphonia does not initially sound likely to yield serious pathology. However, when she is found to have an immobile vocal cord with an ipsilateral cold thyroid nodule, one must suspect a thyroid carcinoma.

Case report

An 11-year-old girl was referred to the ENT Department with a four-month history of hoarseness and weak voice. She

had been treated by her GP with several courses of antibiotics with no improvement.

On indirect laryngoscopy, she was noted to have a right vocal cord palsy. Examination of the neck revealed a very firm, non-tender, 3–4 cm mass in the right lobe of the thyroid gland. She admitted to having noticed this for one month. There were no other palpable masses.

Blood count, sedimentation rate, thyroid function tests and a chest X-ray were normal. A technetium-99 isotope scan showed a solitary cold nodule in the right lobe of the thyroid gland.

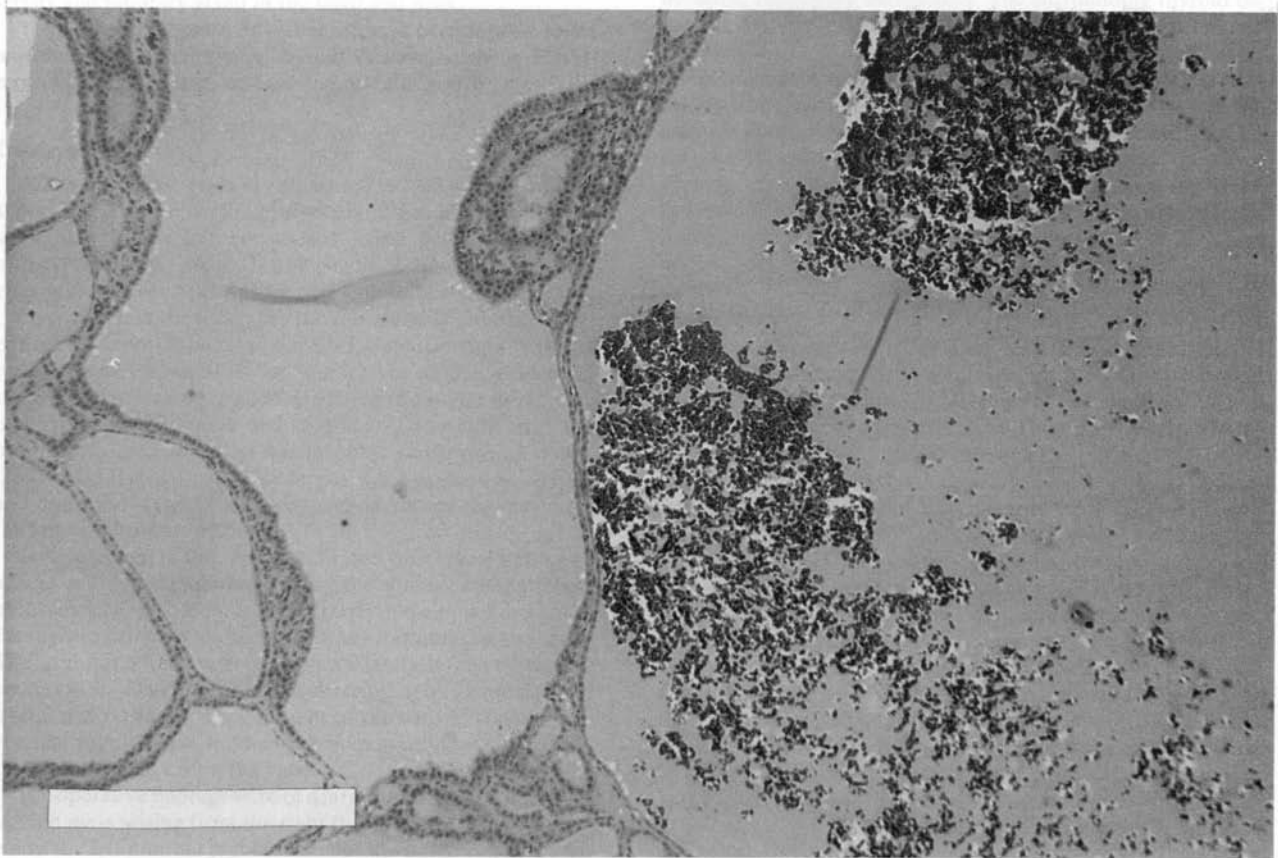


FIG. 1

Haemorrhage into a thyroid adenoma. Erythrocytes are clearly visible within a large cystic cavity on the right. (white mark = 0.5 mm).

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A presumptive diagnosis of thyroid carcinoma was made. It was decided to perform a hemithyroidectomy in the first instance, with the specimen to be sent for frozen section. At surgery, the tumour appeared benign. The recurrent laryngeal nerve was identified deep to the mass which had not extended outside the capsule of the gland. Histology was reported as a benign thyroid adenoma with haemorrhage (Fig. 1).

The post-operative course was uneventful. At eight months there was still no movement of the right vocal cord, although her voice had improved markedly as a result of compensation by the left cord.

Discussion

It is very unusual for benign thyroid disease to produce a recurrent laryngeal nerve palsy (Taylor, 1979). However, several cases have been reported with multinodular goitres (Worgan *et al.*, 1974), and following haemorrhage into a simple thyroid cyst (Gani and Morrison, 1987).

Thyroid tumours are very rare in childhood, unless there has been previous exposure to ionizing radiation ('Annotations', 1966).

Our patient was unusual, first for having a thyroid adenoma at the age of 11 years, and then for it to produce a recurrent laryngeal nerve palsy. As the tumour was not directly involving the nerve, one would postulate that the palsy was caused by sudden stretching of the nerve in association with haemorrhage into the tumour. One would ultimately expect complete recovery, although this had been known to take up to 12 months following thyroid surgery (Sadek *et al.*, 1987).

Key words: Thyroid neoplasms; Laryngeal nerves

Clearly our patient is unusual, and thyroid masses causing recurrent laryngeal nerve palsy must continue to be regarded as malignant until proven otherwise.

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Address for correspondence:

S. Habashi, F.R.C.S.,
43 Chalfont Drive,
Astley,
Tyldersley,
Manchester M29 7PU.