

TUBERCULOSIS OF THE THYROID GLAND: A CASE REPORT

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SUMMARY

Tuberculosis of the thyroid gland is a rare condition. A case of tuberculosis of the thyroid gland presenting as a solitary thyroid nodule is presented. Management is operative intervention and anti-tuberculous chemotherapy. The final diagnosis is made after histopathological confirmation of the typical appearances.

INTRODUCTION

The first reported case of tuberculosis of the thyroid gland was in 1847 and by early 1900, this condition was generally accepted as a definite clinical entity in post-mortem reports, co-existing with generalised miliary tuberculosis or chronic pulmonary tuberculosis.

Bruns in 1893 (quoted by Rankin and Graham)¹ was reported to be the first to document the established diagnosis of tuberculosis of the thyroid gland at operation and since then, many additional cases have been reported worldwide. This is no doubt a rare condition and a preoperative diagnosis is difficult.

CASE HISTORY

A 39-year-old Chinese female was seen on 19 October 1981 at the General Hospital, Sibul, Sarawak with a two weeks history of pain and swelling in the left side of her neck. There was

an associated history of a low grade fever but no history of weight loss or any constitutional symptoms suggestive of hypo or hyperthyroidism.

On examination, there was a tense mildly tender swelling 5 cm x 4 cm in the left lobe of the thyroid. There were no palpable lymph nodes in the neck. A provisional diagnosis of haemorrhage into a thyroid cyst was made. An X-ray of the neck showed a deviation of the trachea to the right. Chest radiograph showed soft opacities in the right upper zone which was presumed to be likely tuberculous infiltration. Haematology: haemoglobin 11.8 g/dl; total white cell count of 5000/cu mm; ESR 1 cm/h; Mantoux test 1 cm; sputum for AFB negative (3x).

On 26 October 1981, a left lobectomy was done through a standard collar incision. The whole of the left lobe of the thyroid was occupied by a tense cyst measuring 5 cm x 5 cm; the isthmus and the right lobe were normal. The cyst was removed intact together with the isthmus and a cuff of the right lobe. The wound was closed with redivac drainage.

Pathology

Gross: a section through the left lobe showed a large cystic structure containing thick creamy material. The inside surface of the cavity appeared necrotic. **Microscopic:** sections showed thyroid tissue replaced by multiple epithelioid granulomata. Numerous multi-nucleated Langhan's giant cells were present. Large areas of caseous necrosis were also seen.

Interpretation: left lobe of thyroid tuberculosis. Her post-operative period was uneventful.

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On follow-up one month later, she was in good health and the operative wound well healed. She was subsequently started on anti-tuberculous treatment.

DISCUSSION

The aetiology of tuberculosis of the thyroid has been postulated to be haematogenous always secondary to some tuberculous process elsewhere in the body which has resolved or is too small to be of clinical significance.

Tuberculosis of the thyroid gland may present in several pathological forms. It can present with multiple lesions throughout the gland in association with miliary tuberculosis, as a goitre with much caseation; cold abscess formation pointing on the surface of the neck; chronic fibrosing tuberculosis of thyroid or as an acute tuberculous abscess.

The presence of the thyroid mass can cause mechanical compression of adjacent structures or direct involvement with fibrosis. This can result in dysphagia, dyspnoea or hoarseness of voice. Dysphagia was the most common complaint

in the review by Postlethwaite and Borg² but recurrent laryngeal nerve involvement is rare and is associated with very severe thyroid involvement.

In this case, there was no evidence of active pulmonary or other forms of tuberculosis. There was a short history of a painful swelling in the neck with a low grade fever and a provisional diagnosis of an acute bleed into a thyroid cyst was made. The operative findings, however, favoured an acute Staphylococcal infection of a cyst. The final diagnosis of tuberculosis of the thyroid gland was made following the histopathological report.

ACKNOWLEDGEMENT

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REFERENCES

- ¹ Rankin FW, Graham AS. Tuberculosis of the thyroid gland. *Ann Surg* 1932 : 96 : 625-648.
- ² Postlethwaite NW, Borg P. Tuberculous abscess of the thyroid gland. *Arch Surg Chicago* 1944 : 48 : 429-437.