Impact Case Reports

Original Research Paper

e-ISSN: 2978-1663

Tuberculous abscess of the thyroid gland with compressive symptoms: a case report

Mahmoud Wa'el Mahmoud Diab[1]

Correspondence: Dr Mahmoud Wa'el Mahmoud Diab, Board-eligible General Surgeon, Ibn Al Haitham Hospital, Amman, Jordan. ORCID: 0000-0001-8101-1155. Email: the3ark@gmail.com

[1]Ibn Al Haitham Hospital, Amman, Jordan

Abstract

Introduction: Thyroid involvement by *Mycobacterium tuberculosis* is uncommon and may mimic neoplasia or subacute thyroiditis. Diagnostic delay is frequent because cytology from the thyroid gland can be non-diagnostic, and clinical features overlap with other inflammatory and malignant conditions.

Case report: A 70-year-old woman with pulmonary tuberculosis presented with several weeks of progressive right-sided neck swelling, dyspnoea and odynophagia, accompanied by night sweats and weight loss (~10 kg over three months). Examination revealed a 5-cm right neck mass (level II) and a palpable supraclavicular node; thyroid function was normal. Ultrasonography demonstrated a 5-cm thyroid lesion. Fine-needle aspiration of the thyroid was non-diagnostic, whereas aspiration of a supraclavicular node confirmed tuberculosis. Owing to compressive symptoms and suspected suppuration, surgical drainage with total thyroidectomy was undertaken; specimens were submitted for histopathology.

Discussion: Thyroid tuberculosis, though rare, should be considered in endemic settings and in patients with systemic risk factors. Image-guided sampling of cervical lymph nodes can increase diagnostic yield when thyroid cytology is equivocal. Management is primarily medical with standard anti-tuberculous therapy; surgery is reserved for large abscesses, airway compromise, failure of percutaneous control or diagnostic uncertainty. This case illustrates the value of targeted sampling, timely source control and multidisciplinary care.

Cite as: Diab, M. Tuberculous abscess of the thyroid gland with compressive symptoms: a case report. *Impact Case Reports*, 1(1), 1-2. https://doi.org/10.62463/icr.241

Introduction

Thyroid tuberculosis is a rare manifestation of Mycobacterium tuberculosis infection despite the gland's rich vascularity, lymphatic drainage and iodine content, which are thought to confer relative resistance to infection[1]. Clinical presentations range from solitary nodules to diffuse enlargement or abscess formation, frequently mimicking malignancy or subacute thyroiditis and complicating diagnosis[1,2]. A systematic review emphasises that acute suppurative thyroiditis and thyroid abscess remain uncommon but potentially life-threatening, requiring prompt recognition, imaging and microbiological confirmation[3].

Case report

A 70-year-old woman with pulmonary tuberculosis, ulcerative colitis, type 2 diabetes and ischaemic heart disease presented with several weeks of progressive right-sided neck swelling, dyspnoea and odynophagia, associated with night sweats and approximately 10 kg weight loss over three months. There was no history of thyroid disease. Medications included anti-tuberculous therapy, mesalazine, candesartan and metformin.

On examination, a 5-cm right-sided neck mass (level II) was palpable and did not move with swallowing; a supraclavicular node was also palpable. Vital signs were stable and there was no stridor. Thyroid function tests

were within normal limits. Ultrasonography showed a 5-cm lesion arising from the thyroid. Fine-needle aspiration of the thyroid lesion was non-diagnostic; aspiration from a supraclavicular node confirmed tuberculosis on cytology/microbiology. Given compressive symptoms and suspected suppuration, operative drainage with total thyroidectomy was undertaken and specimens were submitted for histopathology.

Figure 1: Intra-operative view showing pus collection and thyroid gland.

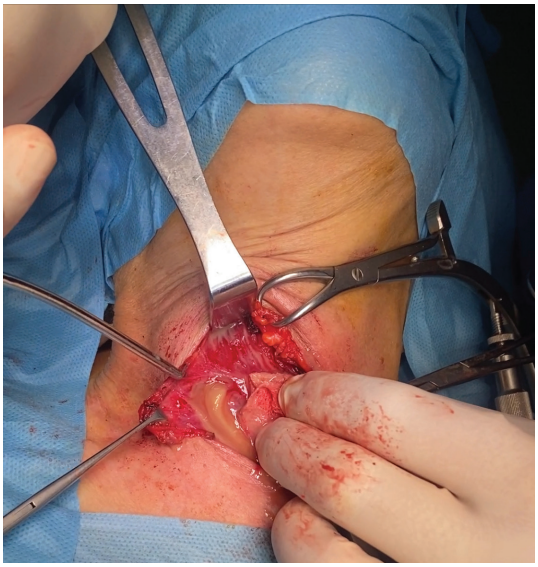

Figure 2: Gross specimen of the excised thyroid gland demonstrating caseation and necrosis.

Discussion

Thyroid tuberculosis is rare even in high-burden settings and may present with a spectrum from inflammatory nodules to frank abscess[1,2]. Distinguishing infection from neoplasia or subacute thyroiditis relies on imaging and targeted sampling. In series of acute suppurative thyroiditis and abscess, recommended management comprises early broad-spectrum antimicrobial therapy directed by cultures, image-guided aspiration or percutaneous/surgical drainage, and, selectively, thyroidectomy for large or complicated collections[3,4]. Where thyroid cytology is equivocal, sampling of involved cervical lymph nodes can establish the diagnosis, as in this case. Standard anti-tuberculous therapy remains the cornerstone of treatment for mycobacterial disease, with surgery reserved for compressive symptoms, airway threat, failure of percutaneous control or uncertainty of diagnosis[1,3,4]. Broader endocrine surgery data from low- and middle-income settings reinforce the importance of context-appropriate pathways and follow-up[5].

Consent: The authors hold written consent for the publication of this case report.

Competing interests: None declared.

GAIT statement[6] for Generative AI use: Generative AI was used for language editing in this manuscript. No content generation, data analysis, or substantive rewriting was performed. The author takes full responsibility for the accuracy and integrity of the work

References

1. Bulbuloglu E, Ciralik H, Okur E, Ozdemir G, Ezberci F, Cetinkaya A. Tuberculosis of the thyroid gland: review of the literature. World J Surg. 2006;30(2):149–155. doi:10.1007/s00268-005-0139-1.

2. Handa U, Garg S, Mohan H. Thyroid tuberculosis: a case series and review of the literature. ISRN Otolaryngol. 2011;2011:359864. doi:10.5402/2011/359864.

3. Lafontaine N, Learoyd D, Farrell S, Wong R. Suppurative thyroiditis: systematic review and clinical guidance. Clin Endocrinol (Oxf). 2021;95(2):253–264. doi:10.1111/cen.14440.

4. Falhammar H, Wallin G, Calissendorff J. Acute suppurative thyroiditis with thyroid abscess in adults: clinical presentation, treatment and outcomes. BMC Endocr Disord. 2019;19(1):130. doi:10.1186/s12902-019-0458-0.

5. Aregawi AB, Long KL, Tegene Y. Assessing Management and Outcomes in Toxic Goitre: A Multicentre Retrospective Cohort Study from Southern Ethiopia. Impact Surg. 2025;2(5):5–10.

6. GAIT 2024 Collaborative Group. Generative artificial intelligence transparency in scientific writing: the GAIT 2024 guidance. *Impact Surg.* 2025;2:6–11. doi:10.62463/surgery.134.