SAS Journal of Surgery
Abbreviated Key Title: SAS J Surg
ISSN 2454-5104
Journal homepage: https://www.saspublishers.com

OPEN ACCESS

Radiology

Thyroid Tuberculosis: Case Report

Hiba Safi Eddine[1], K. Gourram[1*], S. Rachdi[1], H. Belgadir[1], A. Merzem[1], O.Amriss[1], N. Moussali[1], N. El Benna[1], Youssef Bouzoubaa[2], M. Karmouch[2], Y. Oukessou[2], S. Rouadi[2], R. Abada[2], Mahtar[2]

[1]Radiology Department, University Hospital Center 20 Aout 1953, Casablanca, Morocco Faculty of Medicine and Pharmacy, Hassan II University, Casablanca, Morocco
[2]Otorhinolaryngology Department, University Hospital Cente 20 Aout 1953, Casablanca, Morocco, Faculty of Medicine and Pharmacy, Hassan II University, Casablanca, Morocco

DOI: 10.36347/sasjs.2023.v09i07.001 | **Received:** 01.05.2023 | **Accepted:** 06.06.2023 | **Published:** 04.07.2023

***Corresponding author:** K. Gourram
Radiology Department, University Hospital Center 20 Aout 1953, Casablanca, Morocco Faculty of Medicine and Pharmacy, Hassan II University, Casablanca, Morocco

Abstract **Case Report**

Introduction: Thyroidal tuberculosis is a rare entity. The clinical presentation is not specific. The purpose of our observation is to underline the diagnostic problems posed by thyroid tuberculosis. ***Observation***: We report a case of a 60 years old female patient with neck swelling related to a tuberculous infection, who received a anti-tuberculosis therapy. ***Discussion:*** This localization is often secondary, and exceptionally primary it is favored by advanced age, diabetes, malnutrition and HIV infection. The clinical presentation is not specific. It evolves in a chronic or subacute mode. The presence of another tuberculous localization concomitant allows to evoke the diagnosis. A thyrotoxicosis or hypothyroidism can be observed. The differential diagnosis includes, besides thyroid cancer, all other disorders of the gland. The appearance on imaging is not specific and the fine-needle aspiration cytology is only of value when it is positive. Only pathological examination confirms the diagnosis. The treatment is medical and surgical in case of complications. ***Conclusion***: Thyroid tuberculosis is a differential diagnosis that should be considered in front of a cold nodule in a clinical or epidemiological evocative context.

Keywords: Thyroidal tuberculosis, diagnostic problems, thyrotoxicosis, cervical lymph adenopathies.

INTRODUCTION

Thyroidal tuberculosis is a rare entity, even in endemic countries. The clinical presentation is not specific. The treatment of thyroid tuberculosis is medical-surgical.

The purpose of our observation is to underline the diagnostic problems posed by thyroid tuberculosis because of its polymorphous clinical expression, to encourage ENT surgeons to look for it more often, especially in a suggestive context.

CASE REPORT

We report a case of a 60 years old female patient with no pathological history, who presented a neck swelling in the last month.

The patient did not report any compressive signs, fever, hyperthyroidism signs nor alteration of the general condition.

On clinical examination, the patient presented an anterior and lower cervical mass, tender, well-limited, ascending while swallowing, of about 4 cm, pre-fistulized to the skin. There were no cervical lymph adenopathies.

The biological analysis showed an elevated level of C reactive protein and a normal level of TSH.

Initial cervical US showed a multinodular goiter with a large hypoechogenic nodule attached to the isthmus. Chest X ray was normal.

A cervical CT scan was performed showing a thick-walled middle cervical collection communicating with the thyroid isthmus.

A surgical incision and drainage of the collection evacuated pus with several biopsies. The anatomopathological examination of the nodule showed a tuberculoid granulomatous inflammation with caseous necrosis. The patient received an anti-tuberculosis therapy with good evolution.

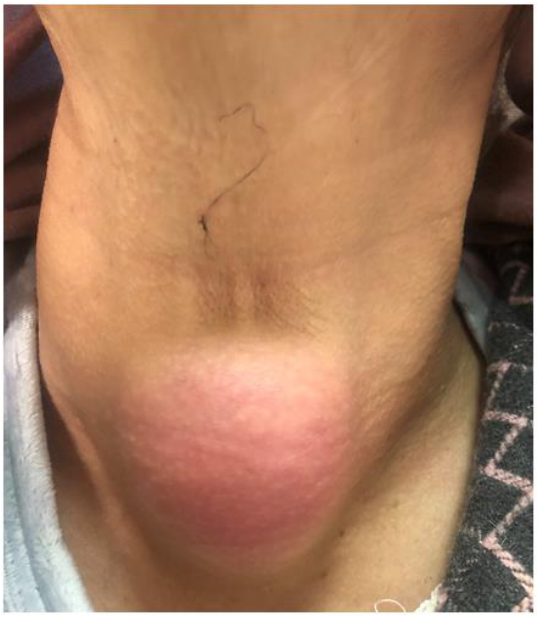

Figure 1: Large anterior neck swelling

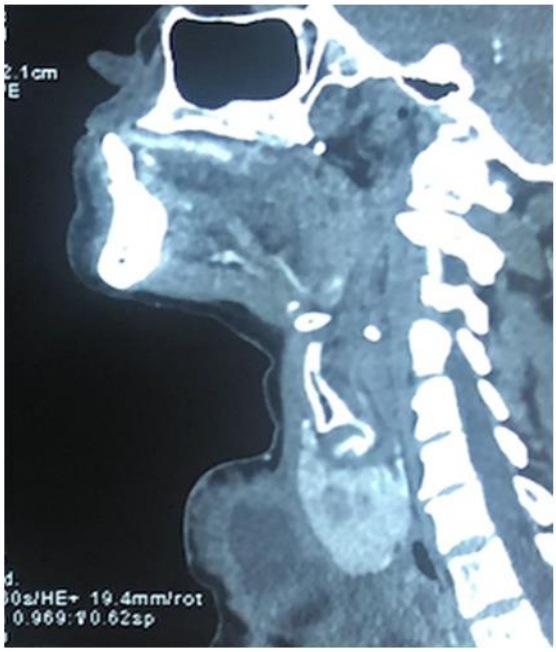

Figure 2: Thick-walled middle cervical collection communicating with the thyroid isthmus

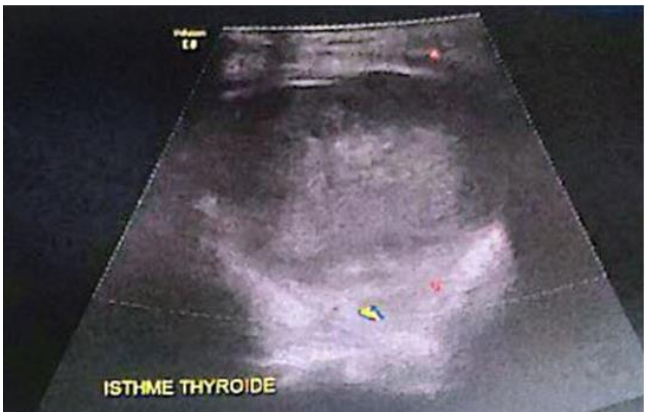

Figure 3: Large hypoechogenic nodule attached to the isthmus

DISCUSSION

This localization is often secondary, and exceptionally primary It is favored by advanced age, diabetes, malnutrition and HIV infection.

The clinical presentation is not specific. It is most often an anterior and lower cervical swelling of progressive onset which may be diffuse or nodular creating a pseudotumoral syndrome. It evolves in a chronic or subacute mode.

Satellite lymph adenopathies and/or recurrent paralysis can orient the diagnosis towards a malignant etiology. The presence of another tuberculous localization concomitant allows to evoke the diagnosis. Sometimes we find an abscess that fistulizes to the skin. The general signs may be absent. The signs of orientation are epidemic and clinical (signs of impregnation, fistulization of a cold abscess, positive tuberculin test…), A thyrotoxicosis or hypothyroidism can be observed exceptionally.

The differential diagnosis of this condition includes, besides thyroid cancer, all other disorders of the gland: nodular goiter, Graves' disease, Basedow's disease and thyroiditis.

The appearance on imaging is not specific. However, the presence of a thick-walled lesion on the CT scan with necrosis in the center, is characteristic. The fine-needle aspiration cytology (FNAC) is only of value when it is positive.

Only pathological examination confirms the diagnosis and thus eliminate a neoplasic association. HIV serology should be performed systematically, given the frequency of the coexistence of both (HIV and tuberculosis infections). The treatment is medical and surgical in case of complications.

CONCLUSION

Thyroid tuberculosis is a differential diagnosis that should be considered in front of a cold nodule in a clinical or epidemiological evocative context.

Provenance and peer review: Not commissioned, externally peer-reviewed.

Consent

Written informed consent for publication of their clinical details and/or clinical images was obtained from the family of the patient.

Ethical approval

I declare on my honor that the ethical approval has been exempted by my establishment.

Sources of funding: None

Registration of research studies: None

REFERENCES

- Mondal, A., & Patra, D. K. (1995). Efficacy of fine needle aspiration cytology in the diagnosis of tuberculosis of the thyroid gland: a study of 18 cases. *The Journal of Laryngology & Otology*, *109*(1), 36-38.
- Majid, U., & Islam, N. (2011). Thyroid tuberculosis: a case series and a review of the literature. *Journal of Thyroid Research*, *2011*.
- El Malki, H. O., El Absi, M., Mohsine, R., Taleb, K. A., Chefchaouni, M. C., Oulbacha, S., ... & Balafrej, S. (2002, May). La tuberculose de la thyroïde. Diagnostic et traitement. In *Annales de chirurgie* (Vol. 127, No. 5, pp. 385-387). Elsevier Masson.
- Terzidis, K., Tourli, P., Kiapekou, E., & Alevizaki, M. (2007). Thyroid tuberculosis, *Hormones*, 6(1), 75-79.