

## Thyroid discharge revealing an Epidermoid carcinoma of the mouth of the Esophage

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### Abstract

Thyroid abscess is a rare condition most often caused by Gram + cocci, which usually occurs on a morphologically abnormal gland. The evolution usually goes towards the cure under antibiotic treatment and the drainage of the abscess or the surgery of the thyroid. Thyroid atypical in the 30 years without pathological history, it is recommended to treat a cervical anterior with a dysphagia and an alteration of the general state of health, associated with an evolving clinical and biological infectious syndrome for 3 months. A nasofibroscope performed showed paresis of the two CVs opening with salivary stasis at the level of the 2 piriform sinuses. Cervical ultrasound showed a thyroid goitre left geniobular collection with relation to a thyroid abscess. Cervical CT showed a collection of 50 x 25 mm liquid containing air bubbles affecting the left thyroid lobe compared to a thyroid abscess extended to the piri form sinuses with thickening of the hypopharynx and mouth of the thyroid. esophagus with major cervicomedia emphysema. Needle puncture and a fluctuating part of the oral reaction are 15 cm of free weight, the bacteriological envelope of which revealed a staphylococcus aureus. The patient initially received triple antibiotic therapy (amoxicillin-clavulanic acid - metronidazole - gentamycin), then adaptation of the antibiotherapy according to the results of the antibiogram with a clinical and biological improvement (CRP at 12) and a regression of the swelling.

**Keywords:** thyroid gland - mouth of the esophagus - thyroid abscess - squamous cell carcinoma

### Introduction

Thyroid abscess is a rare pathological entity. It represents 0.1% of surgical diseases of the thyroid. The thyroid gland has anatomical and physiological characteristics that gives it a particular resistance to infections. It usually occurs on an abnormal morphology gland. The association with thyroid neoplasia or neoplasia of the ENT sphere, is a predisposing factor <sup>[1]</sup>.

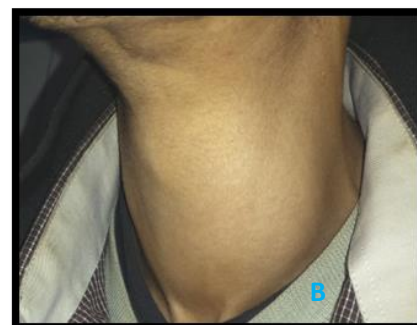
We report the case of a 30-year-old patient with an abscess of the thyroid revealing squamous cell carcinoma of the mouth of the esophagus. The objective is to present the clinical, paraclinical and the peculiarities of the support of this association.

### Observation

It was 30-year-old Mr M.H with no history of immunosuppression. He was admitted to the emergency room for anterior cervical swelling associated with dysphonia and dysphagia to solids that had been evolving for 5 months. There were no clinical signs of dysthyroidism. This symptomatology was complicated by the installation of inspiratory dyspnea for 3 days with febrile attacks and weight loss estimated at 15 kg in 6 months.

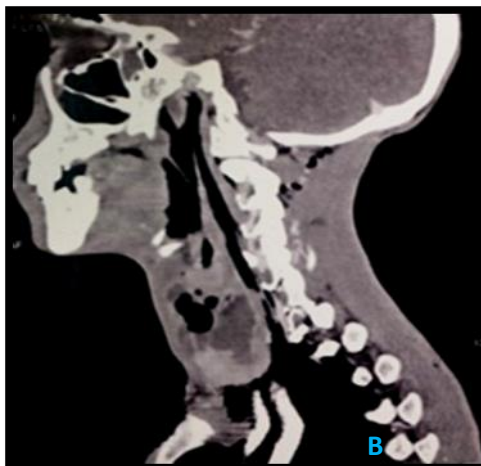
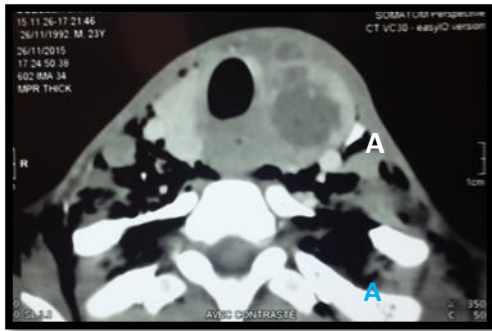
At admission, the patient has inspiratory dyspnea, polypnea, and susternal draw. He was afebrile.

Anterior cervical swelling closes at the expense of the thyroid without inflammatory sign or fistulization (fig. 1). There was no associated lymphadenopathy

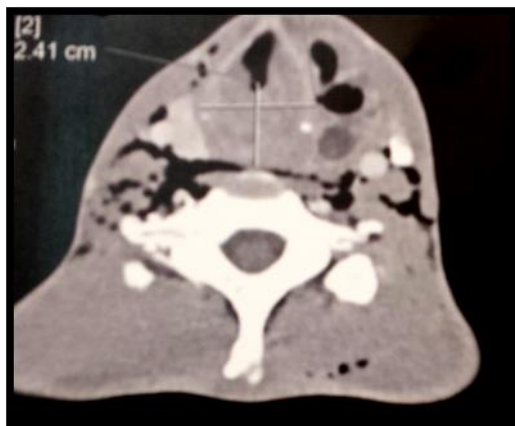


**Fig 1:** View of the left cervical region showing 5 cm left lateralized anterior cervical swelling (-A: profile picture -B: front picture)

Nasofibroscope showed paresis of both vocal cords in the paramedian position associated with salivary stasis at the level of the two piriform sinuses. There were no other clinically detectable lesions. Cervical ultrasound showed the presence of a left medio-lobar thyroid collection 6 cm in hypoechogene diameter evoking a thyroid abscess. The cervico-thoracic CT scan showed a 50x25 mm fluid collection containing air bubbles affecting the left thyroid lobe in relation to a thyroid abscess extended to the left piriform sinus. There was thickening of the hypopharynx and mouth of the esophagus and cervico-mediastinal emphysema (Fig 2-3).



**Fig 2:** CT pictures showing a liquid collection related to a thyroid abscess associated with thickening of the esophagus mouth on the axial section. -A: Axial cut - B: coronal cut



**Fig 3:** cervical scanner in axial section: thickening of the hypopharynx and mouth of the esophagus with significant cervicomedial emphysema

The initial infectious assessment revealed polynuclear neutrophil leukocytosis and a C-reactive protein assay at 354 mg / l.

An infectious record for tuberculosis was negative: IDR for tuberculin, as well as the 3 BK-sputum were normal. The chest X-ray showed no suspect parenchymal or mediastinal foci. HIV and hydatid serology were negative.

A puncture of the thyroid collection brought back 15 ml of franc pus. The bacteriological study revealed a multi-microbial flora with isolation of staphylococcus aureus associated with the presence of anaerobics, all sensitive to usual antibiotics.

The patient was initially placed under triple antibiotherapy (amoxicillin-clavulanic acid + metronidazole + gentamycin) and was then rehabilitated after the result of the antibiogram.

On the 3rd day of hospitalization, the patient experienced a worsening of his inspiratory dyspnea at night. A tracheostomy was performed urgently. The patient presented a good clinical and biological improvement of the infectious syndrome after 15 days of treatment.

Then, a hypopharyngoscopy under general anesthesia was performed, It showed a tumor thickening of the mouth of the esophagus. The anatomopathological study of the biopsies concluded that the epidermoid carcinoma was moderately differentiated from the mouth of the esophagus. The patient had a feeding jejunostomy because of dysphagia and weight loss. And addressed to a multi-disciplinary oncological consultation meeting where a radio-chemotherapy was proposed.

**Discussion**

L'abcès de la thyroïde est une affection représentant 0,1% des pathologies médicales et chirurgicales de la glande thyroïde [1]. Son association avec un cancer de la bouche de l'œsophage est rare [2].

L'infection de la glande thyroïde est rare, ceci est attribuée en grande partie à sa situation anatomique isolée grâce à sa capsule fibreuse. En outre, elle est dotée d'une vascularisation riche et largement anastomosées, un drainage lymphatique important, et d'une haute concentration en iode. Ce qui lui procure une grande capacité de résistance aux agents pathogènes [3].

Thyroid abscess is a condition representing 0.1% of medical and surgical diseases of the thyroid gland [1]. Its association with cancer of the mouth of the esophagus is rare [2].

The infection of the thyroid gland is rare, this is attributed largely to its isolated anatomical situation due to its fibrous capsule. In addition, it has a rich and largely anastomosing vasculature, an important lymphatic drainage, and a high concentration of iodine. This gives it a high resistance to pathogens [3].

In bacteriologically, the most implicated germs are Staphylococcus aureus, Streptococcus, and anaerobics. These germs are found in 70% of cases [8]. Other species have been isolated: Escherichia coli following bacteremia with urinary or digestive origin [8], Bacteroides fragilis isolated from post-hysterectomy for women [9].

In addition, other pathogens have been isolated and reported in the literature: Klebsiella, Salmonella typhi, Acinetobacter, Mycobacterium tuberculosis, Pseudomonas, Eikenellacorrodens, Clostridium, Fusobacteriummortiferum,

*Pneumocystiscarnii*, *Haemophilus* [7, 10] as well as fungal agents such as: *Candida albicans*, and *aspergillosis* [7]. These species have been identified in patients with immunosuppression [7]. For our patient bacteriological study revealed a *staphylococcus aureus* associated with anaerobes. Clinically, thyroid abscess occurs as a painful cervical swelling, often following a high or pharyngeal respiratory infection. The associated signs are represented by the appearance of dyspnoea, hoarseness, even dysphonia, dysphagia, and fever [4].

Rare presentations have been reported: paralysis of a vocal cord, cervical pulsatile mass, or asymptomatic cases [4, 7].

The diagnosis is confirmed by the needle puncture which brings back pus franc. The cytobacteriological study allows to isolate the causative microbial agent, and to study its susceptibility to antibiotics [4].

The biological assessment is often disturbed: increase in CRP, hyperleucocytosis. The hormonal assessment is often normal, sometimes it shows a hyperthyroidism [3].

Ultrasound and CT scans are an essential aid in the study of the structure of the abscess, the number of lodges, its size, and its relationship with adjacent anatomical structures especially with the vasculo-nervous pack of the neck and higher airways [4].

After resolution of the acute episode, the scanner is useful to look for congenital malformations such as a fistulous tract opening into the piriform sinus [4, 6], after ingestion of a water-soluble product, this investigation is essential especially for young people patients and those with recurrent episodes of thyroid abscess [6, 7]. Despite the details provided by imaging, it is universally recognized that simple needle aspiration confirms the diagnosis of abscess, allowing appropriate treatment to be undertaken [7].

Differential diagnoses are represented by viral subacute thyroiditis and chronic thyroiditis, intra cystic hemorrhages, primary neoplasms or metastases, and amyloidosis [3].

The therapeutic strategy is based on a first probabilistic antibiotherapy adapted secondarily to the results of the antibiogram. corticosteroids, is likely to worsen the clinical picture and spread the infection.

The drainage incision is indicated whenever there is a purulent collection objectivated to needle aspiration.

The drainage incision is indicated whenever there is a purulent collection objectivated to needle aspiration. Without waiting for the signs of suffering of neighboring structures: recurrent nerve, esophagus, larynx. some authors advocate an excision of the thyroid lobe abscess seat, or at least a debridement and excision of necrotic tissue, with resection of fistulous connections if possible [7].

Untreated, thyroid abscess can have adverse consequences on nearby organs. It can cause the destruction of the thyroid glandular parenchyma and parathyroid glands, thrombophlebitis of the jugular vein [6]. Fistulization of the abscess in the esophagus or trachea, external fistula to the skin [8]. Sepsis and blood dissemination to distant organs: osteomyelitis, for example [6, 7].

The association of the thyroidian abscess with carcinoma of the esophagus is very rare, in fact only one case in the literature was described by Premawardhana, JP Vora and MF Scanlon in 1992 of a superseded thyroiditis with discovery of a fistula between a carcinoma of the esophagus and the thyroid compartment, but in this case the suppuration was caused by fistulization of the esophageal tumor and the thyroid compartment, which is not the case in

our patient where the imaging and Endoscopy did not show any direct or indirect signs of tumor fistulization [2].

## Conclusion

Thyroid abscess is a rare entity. The diagnosis is often made late because of the insidious onset and the non-specific nature of the symptoms. Often taken for sub-acute thyroiditis of viral origin, it is a rapidly progressive pathology with significant morbidity, which can compromise the functioning of the adjacent anatomical structures by compression and tissue necrosis, and remotely by dissemination of the infection.

The existence of a thyroid pathology, old goiter, or thyroid neoplasia, or any other neoplasm of the ENT sphere is recognized as a predisposing factor for adults.

Rapid diagnosis to undertake a Early antibiotic therapy and surgical drainage is the only guarantor to prevent complications.

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