CERVICAL LYMPH NODES, A DIAGNOSTIC DILEMMA

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Abstract

Cervical lymph nodes could be a starting sign for a complex diagnosis work-up. Depending on co-morbidities, medical unit and physician's previous experience, the differential diagnosis includes thyroid malignancy, lymphoma, chronic infectious disorders, etc.

Key words: Thyroid nodule, tuberculosis, scrofula, lymph node.

INTRODUCTION

Cervical lymph nodes could be a starting sign for a complex diagnosis work-up. Depending on co-morbidities, medical unit and physician's previous experience, the differential diagnosis includes thyroid malignancy (1), lymphoma (2), chronic infectious disorders, etc. A 60-year hypertensive lady, known for chronic autoimmune thyroiditis with hypothyroidism on LT4 replacement, was hospitalized for dysphagia, weight loss and loss of appetite. She presented bilateral laterocervical lymphadenopathy that appeared about

few months before admission, during pandemic crisis of SARS-Cov-2 and progressed without celsian signs.

Clinical examination at admission: good general condition, G = 78kg, H = 170 cm, BMI = 26.9 kg/m² (overweight), clinical and biochemically euthyroid (TSH= 0.98 mU/L, fT4=1.1ng/dL) euthyroid under 100 mcg L-thyroxine daily. Multiple cervical lymph nodes of 3/3.5 cm were palpable, painless, with moderate dysphagia for solid food but no hoarseness. Thyroid ultrasound at admission shows bilateral hypoechoic, intensely inhomogeneous, with numerous hypoechoic areas, delimited by hyperechoic fine septae, aspect of chronic autoimmune thyroiditis. In addition, she presents, in the right laterocervical area, numerous globular-looking lymph nodes with micro and macrocalcifications with Doppler signal, with a tendency to conglomeration, the largest of 2.9/2.06/1.88 cm.

Computed tomography of the cervical, mediastinal and thoracic region, highlights tumor masses compatible with lymph nodes in several areas: bilateral-cervical, more on the right side, and thrombosis of the right internal jugular vein.

Figure 1. A - Coronal CT scan; B - Axial scan contrast; C - Sagittal Scan, contrast.

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Acta Endocrinologica (Buc), vol. XVI, no. 1, p. 112-113, 2020

Figure 2. Pathology slide.

After contrast, the lesion was iodophilic at periphery (33-63 UH) with a middle area of 12 UH suggesting necrosis (Figs 1 a-c). In addition, there are lesions in the superior, middle, and posterior mediastinum, as well as in the lung hilum; pleuropericardial and bilateral pleurodiaphragmatic adhesions. In these circumstances, under a high suspicion of lymphoma, she was submitted to excision-biopsy of a cervical lymph node. The approach was of the right inferior laterocervical station, considering the superficial localization, avoidance of dissection in the vicinity of the cervical esophagus, sufficient ganglion mass for pathology. Lymph node block presented frank invasion of the medial border of the sternocleidomastoid muscle, inextricable fibrosis that includes an adenopathic tumor mass, right internal jugular vein that dissects with difficulty and its thrombosis is found on a length of 4-5 cm, right common carotid artery that does not have a surgical cleavage plan with the neighbouring organs. The intra-operative aspect suggested malignancy, with frank local invasion, most likely lymphoma. During the dissection, the rupture of the adenopathic mass released a white-yellow, non-fetid liquid content, with tissue sequestration with the appearance of a TB caseum.

A difficult tissue excision is performed, given the lack of any cleavage plan and the significant risk of damage to the jugular vein and carotid artery. Pathology shows giant-epithelioid granulomatous lymphadenitis with areas of focal necrosis and confluence, with pericapsular extension in the periganglionic fatty fibroconjunctival tissue including areas of perineural inflammatory infiltration with high probability secondary tuberculosis of long evolution. There is massive granulomatous reaction with histioepithelioid cells, giant cell formation, focal and confluent necrosis extending outside the lymph node capsule: typical picture of tuberculous lymphadenitis (Fig 2 x 200 HE).

In conclusion, TB lymphadenitis at cervical level could mimic other severe disorders, suggestive by clinical aspect, CT features and intra-operative appearance and with frank invasion of neighbouring tissues. The final key for diagnosis came from the pathologist, allowing a good outcome. While tuberculosis remains a worldwide public health issue, cervical tuberculous lymphadenitis or scrofula is the most common form of extrapulmonary tuberculosis, affecting the cervical lymph nodes (3).

Conflict of interest

The authors declare that they have no conflict of interest.

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