

IMAGEM EM NEUROLOGIA/IMAGE IN NEUROLOGY

A Rare Case of Thyroid Gland Transient Hypoperfusion After Penetrating Cervical Trauma

Um Caso Raro de Hipoperfusão Transitória da Glândula Tireoide Após Trauma Cervical Penetrante

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A 42-year-old male with penetrating cervical trauma after a suicide attempt. The initial computed tomography (CT) angiography revealed an acute thrombus in the right carotid bifurcation due to traumatic laceration. The thrombus extended close to the superior thyroid artery origin, with no vascular occlusion detected. There was also an upper right thyroid hypodensity, with short-term resolution¹, compati-

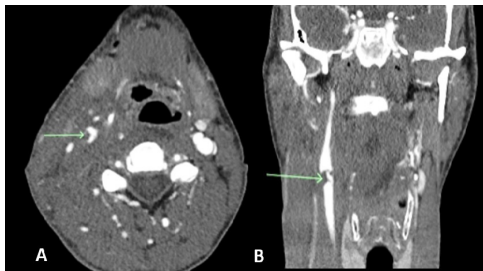


Figure 1. Axial (A) and coronal (B) enhanced neck CT angiography (CTA) demonstrating signs of penetrating right cervical trauma with a knife (not shown) with extensive edema of the myo-adipose planes and acute intraluminal thrombus in the right carotid bifurcation.

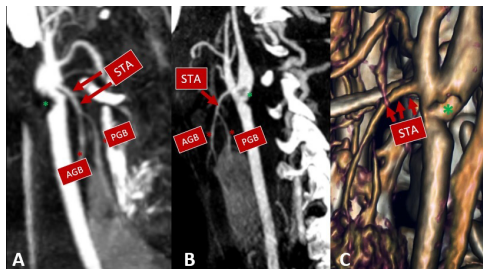


Figure 2. Sagittal MIP (A and B) and Sagittal Volume Rendering (C) neck CTA reconstructions. The thrombus (green asterisks) extended close to the origin of the superior thyroid artery (STA - red arrows), which was patent. The anterior glandular (AGB - red asterisks) and posterior glandular (PGB - red asterisks) branches of the STA were also patent until the upper thyroid gland.

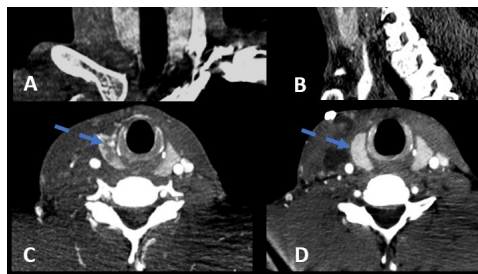


Figure 3. Coronal MIP (A), Sagittal MIP (B) and Axial MIP (C) neck CTA reconstructions. Hypodense area with irregular borders and "geographic" appearance in the posterosuperior aspect of the right thyroid lobe (blue dashed arrows). Axial MIP (D) 1 week follow-up.

ble with transient hypoperfusion.

Thyroid gland transient hypoperfusion is a rare complication, with only 2 cases described to our knowledge. The mechanisms would be occlusion, distal thromboembolism, or vasospasm². Our case is probably due to the last two hypotheses, given the patency of the proximal arteries.

The recognition of this entity is important and must not be missed in the report. The inflammatory reaction generated by this vascular abnormality - which can be transient as in this case or definitive with installed infarct - causes releasing of thyroid hormones into the bloodstream, and the patient may evolve with thyrotoxicosis. Fortunately, our patient did not present these laboratory or clinical changes, probably because the involved area was relatively small and rapidly reversible. ■

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