DIAGNOSIS OF TEMPORAL ARTERITIS BY INTRACRANIAL ARTERIAL COMPUTED TOMOGRAPHY ANGIOGRAPHY: CASE REPORT

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BACKGROUND

Giant cell arteritis (GCA) is a granulomatous vasculitis of large vessels, characterized by involvement in variable topographies (temporal artery, aorta and its large branches). It has an incidence of 15–25 cases per 100,000 inhabitants per year, mainly affecting women over 50 years old, and the main causes of morbidity and mortality are ischemic complications such as visual loss, aortic stenosis or occlusion and aneurysms. The diagnosis of this pathology has the temporal artery biopsy as the gold standard. However, due to segmental involvement, biopsy produces a high rate of false negatives, also being an invasive procedure. Thus, in recent years, new studies have been carried out to assess imaging tests in the diagnosis of GCA. In the EULAR guideline 2019, recommendations were made for using imaging tests in GCA, and Doppler ultrasound (US) was considered the most sensitive test for identifying temporal arteritis. On the other hand, intracranial arterial computed tomography angiography (CTA) and magnetic resonance imaging (MRI) were restricted to the evaluation of other branches of the aorta, as they do not have adequate resolution for visualizing the temporal artery. However, studies using three-dimensional CTA highlight the increased sensitivity for evaluating the vessel lumen, as well as the differentiation of vasculitis and atheromatosis. Thus, making the three-dimensional CTA an alternative for the diagnosis of GCA.

CASE REPORT

A 71-year-old female patient presented to the emergency room with moderate-intensity, pulsating headache in the bilateral temporal region associated with mandibular claudication and temporal artery thickening on palpation, with negative visual changes. Due to the suspicion of GCA, the rheumatology team was called in and requested inflammatory tests, with a value of erythrocyte sedimentation rate of 116 mm and C-reactive protein of 12.8 mg/dL. As an additional examination, a three-dimensional CTA was requested, which showed irregularities in the right temporal artery with mild stenosis. Considering the entire clinical conditions associated with the imaging exam, the hypothesis of GCA was raised, and prednisone 60 mg/day was started. The patient was reevaluated after 1 month, with improvement in symptoms.

CONCLUSION

Associated with clinical history, the three-dimensional CTA is an alternative for an early diagnosis of GCA, providing agility in the treatment and reducing morbidity and mortality, but the need for further studies is evident, with standardization and validation of the test.

KEYWORDS

Giant cell arteritis, Intracranial arterial computed tomography angiography, Diagnosis.