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Clinical Image

Physical examination – A key for giant cell Arteritis Early Diagnosis

Ana Azevedo, MD[1]; Horácio Scigliano, MD[2]; Luísa Sousa, MD[1]

[1]Neurology Department, Centro Hospitalar de Entre o Douro e Vouga, Portugal

[2]Anatomic Pathology Department, UNILABS, Hospital São Sebastião - Centro Hospitalar de Entre o Douro e Vouga, Portugal

Clinical description

A 76-year-old woman presented to our hospital in August 2021 with severe right sided headache, jaw claudication and recurrent episodes of transient visual loss, with blurred vision, a floating shadow, and flashing lights, lasting less than 2 minutes. She reported no previous medical history.

On physical exam, the right temporal region was swollen and tender, with an underlying indurated temporal artery (Figure 1A). The neurological exam, including ophthalmoscopy, was normal.

Erythrocyte sedimentation rate (ESR) was 65 mm/h (reference range 0-35). Brain computed tomography showed chronic ischemic leukoencephalopathy, with no acute changes. A clinical diagnosis of giant-cell arteritis (GCA) was established, and the patient was started on corticosteroids. After three days of iv methylprednisolone (500mg id), the patient reported improvement of her symptoms. Physical examination showed a marked reduction of edema and

tenderness of the temporal artery (Figure 1B). ESR also became normal. A biopsy of the right temporal artery, performed after 3 days of methylprednisolone 500mg id and 2 days of prednisolone 60mg id, confirmed the diagnosis (Figures 2A and 2B).

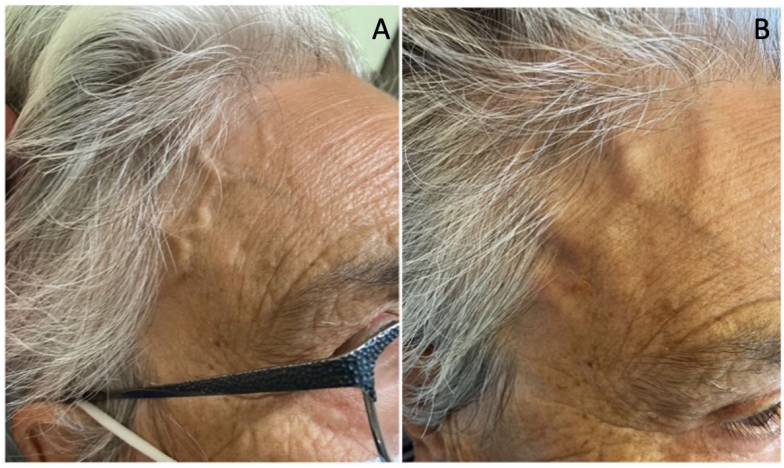
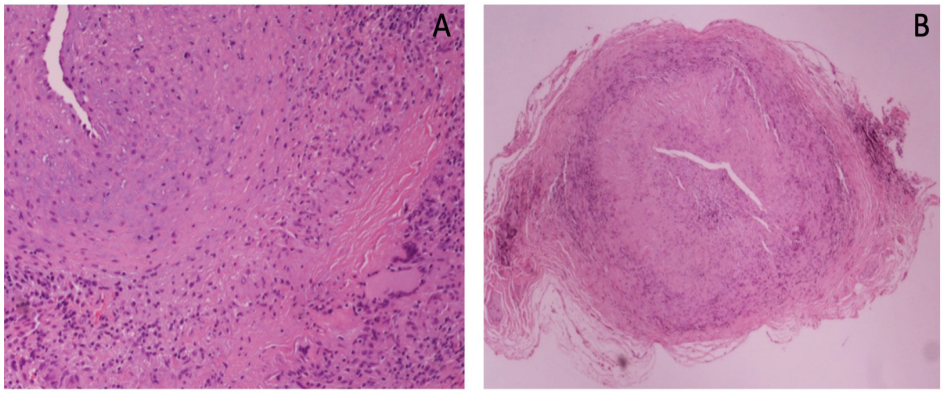


Figure 1A: *Swollen and tender temporal artery over the right temple before treatment.*
Figure 1B: *Marked reduction of the edema and tenderness surrounding the temporal artery after three days of treatment.*



Figures 2A and 2B: *Histological haematoxylin- and eosin-stained sections of right temporal artery biopsy. Intimal proliferation with resulting luminal stenosis, and disruption of the internal elastic lamina with fibrinoid necrosis by lymphocytes and histiocytes, with multinucleated giant*

***Corresponding Author:** Ana Azevedo, Neurology Department, Centro Hospitalar de Entre o Douro e Vouga, Portugal

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Commentary

GCA is the most common form of primary systemic vasculitis, that affects large and medium sized blood vessels, with a preference for the cranial branches derived from the carotid artery. It is more frequent in women above 50 years.1

GCA causes severe myointimal proliferation and vessel occlusion, which may lead to blindness in up to 20% of the cases. 1 It is considered a medical emergency, and treatment with high doses of glucocorticoids should be initiated immediately after the diagnosis is suspected, to prevent ischaemic complications and to provide symptomatic relieve (in most cases, as in ours, within 24-48h).2 It is well known that the diagnosis of GCA is based on the combination of clinical symptoms, laboratory test (ESR), and histopathology. As the treatment should be started immediately, usually the diagnosis is based on the symptoms and laboratory findings before the temporal artery biopsy. However, ESR is normal in 5-30% of patients with GCA.3 In these cases, careful history taking and temporal artery examination for edema and tenderness is particularly important.

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