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CLINICAL IMAGE

Relapse of giant cell arteritis in facial artery

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Presentation

A 76-year-old man with giant cell arteritis (GCA) consulted for a painful submandibular swelling. GCA diagnosis was made 12 years ago based on polymyalgia rheumatica, scalp and temporal artery tenderness and high inflammatory markers. Temporal artery (TA) biopsy was negative, as well as search for large vessel vasculitis on 18F-fluorodeoxyglucose positron emission tomography/computed tomography imaging. GCA was treated by 17 months of glucocorticosteroids (GC). A GCA relapse was then diagnosed 10 months before the consultation, characterized by diplopia with a favorable outcome after reintroduction of GC. GC were progressively tapered to 7 mg prednisone per day when a painful submandibular swelling appeared. This was the sole clinical manifestation, and blood tests showed no markers of inflammation: white blood cell count at 9.8×10^9/l and C-reactive protein at 2.2 mg/l (normal < 5 mg/l). A Doppler-ultrasonography showed a halo sign on the left facial artery wall with normal submandibular gland, confirming GCA involvement (Fig. 1A–B). The swelling spontaneously resolved after maintaining a stable prednisone dose for 7 days. GC tapering was then performed.

Discussion

GCA is a vasculitis predominantly affecting large and medium arteries. Submandibular swelling is a very rare manifestation of GCA, due to facial artery involvement [1]. To our knowledge, this is the first reported case of GCA relapse with facial artery involvement being the cardinal manifestation.

Doppler-ultrasonography is an useful tool to detect involvement in these arteries, thus, ultrasound was recommended as first imaging modality by EULAR in 2018 [2]. Doppler-ultrasonography can detect halo sign in arteries, defined as a circumferential homogenous hypoechoic wall thickening. Cut-off value for intima-media complex thickness for facial artery was set to 0.4 mm assessed by Doppler-ultrasonography [3]. Halo sign on facial artery is not rare, observed in 26.7 to 49.2% of GCA patients, usually in association with TA involvement [3–5]. Facial artery involvement has been associated with jaw claudication, scalp tenderness, TA abnormalities, permanent visual loss and thrombocytosis [4, 5]. Although facial artery involvement is mostly associated with a positive TA Doppler-ultrasonography, its screening could help identify more patients with GCA as there are few cases of GCA diagnosed on facial or occipital arteries involvement [4–6].

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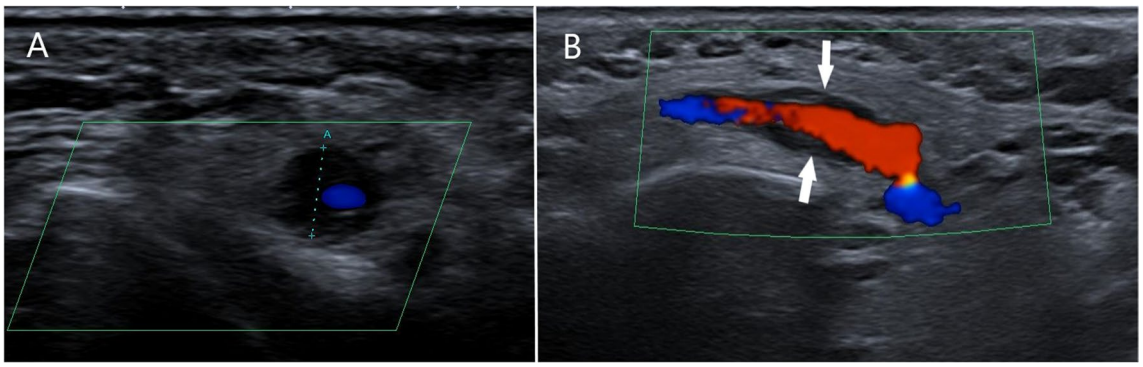

Fig. 1 Doppler-ultrasonography of the left facial artery showing circumferential homogenous hypoechoic wall thickening in transverse (**A**) and longitudinal plane (**B**) in favor of a halo sign in GCA

Declarations

Consent statement Written informed consent for publication of his details was obtained from the patient.

Disclosures None.

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