

Large vessel vasculitis

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Giant cell arteritis

Case of a 74-year-old woman with giant cell arteritis presenting with only systemic manifestations (high fever > 38.5°C, anorexia with weight loss of 4 kg in 3 months and asthenia). ESR was 104 mm/h.

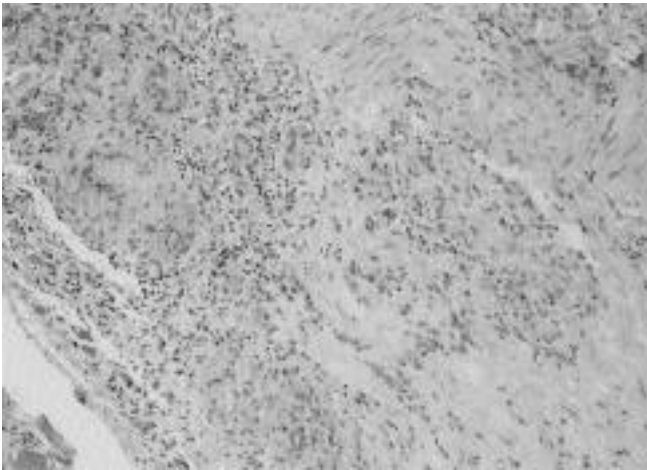


Fig. 1. Biopsy specimen of temporal artery stained with hematoxylin and eosin, x 100. Present is a dense transmurular inflammatory infiltrate with scattered giant cells.



Fig. 2. ¹⁸F-FDG-PET image. Increased FDG intake in the thoracic aorta, and both subclavian and axillary arteries.

Duplex ultrasonography in giant cell arteritis

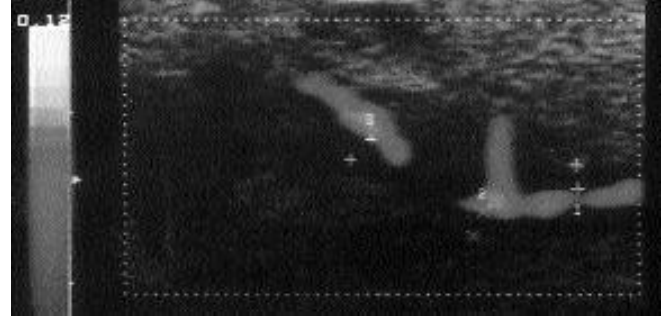


Fig. 1. Patient with temporal arteritis: A color Doppler longitudinal scan shows hypoechoic (black) areas around the proximal superficial temporal arteritis (indicated by crosses).

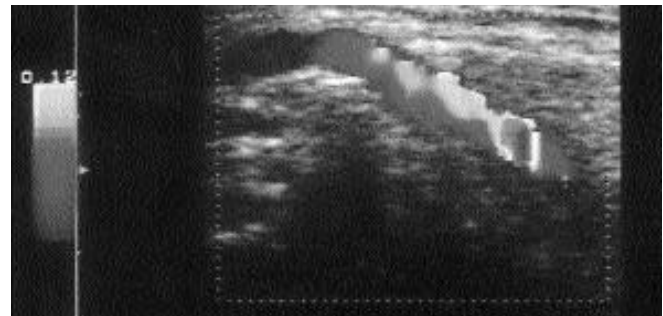


Fig. 2. Patient without temporal arteritis: A color Doppler longitudinal scan shows normal proximal superficial temporal artery.

Three different studies have reported that ultrasonographic evidence of a dark halo around the lumen of temporal arteries had good specificity, but lower sensitivity for diagnosing GCA (Table). In other words, the presence of a halo rules in a diagnosis of giant cell arteritis (GCA), although its absence does not exclude this diagnosis.

Table I. Sensitivity and specificity of ultrasonographic evidence of a halo around temporal arteries for the diagnosis of giant cell arteritis.

Study (ref.), year	Biopsy-proven giant cell arteritis	
	Sensitivity	Specificity
Schmidt <i>et al.</i> (1), 1997	76%	92%
Salvarani <i>et al.</i> (2), 2002	40%*	93%*
Schmid <i>et al.</i> (3), 2002	50%	100%

*Halo > 1 mm in thickness

References

1. SCHMIDT WA, KRAFTH, VORPHAL K *et al.*: Color duplex ultrasonography in the diagnosis of temporal arteritis. *NEnglJMed* 1997;337:1336-42.
2. SALVARANI C, SILINGARDI M, GHIRARDUZZI A *et al.*: Is duplex ultrasonography useful for the diagnosis of giant cell arteritis. *Ann Intern Med* 2002; 137: 232-8.
3. SCHMID R, HERMANN M, YANNAR A, BAUMGARTNER RW: Color duplex ultrasound of the temporal artery: replacement for biopsy in temporal arteritis. *Ophthalmologica* 2002; 216: 16-21.

Primary systemic amyloidosis presenting as giant cell arteritis

Case of a 73-year-old man with anorexia, weight loss, and claudication of the jaw, arms and legs. Physical examination revealed bruits over the arms. Serum immunoelectrophoresis showed a monoclonal IgG protein. Aortogram demonstrated changes consistent with arteritis of the aortic arch vessels. ESR 82 mm/1st hr.

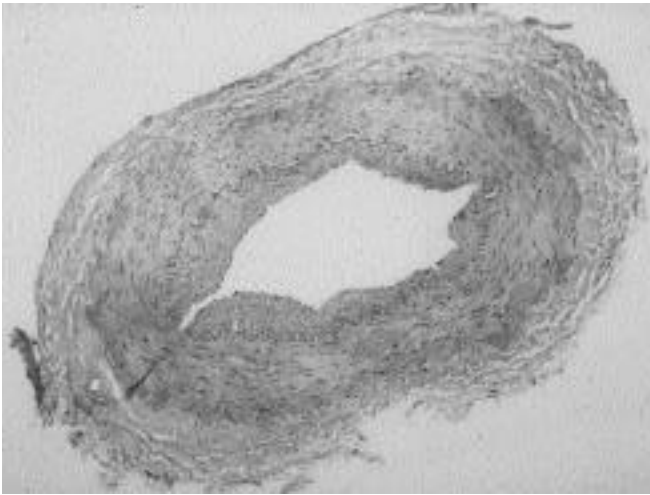


Fig. 1. Temporal artery biopsy specimens. Hematoxylin and eosin-stained section showing absence of inflammation.

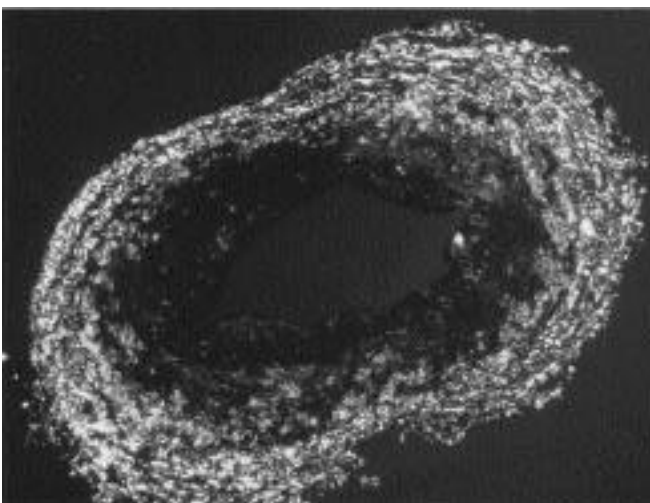


Fig. 2. Temporal artery biopsy specimens. Congo red-stained section under polarized light showing amyloid deposits.

Takayasu's arteritis

Case of a 32-year-old woman with Takayasu's arteritis presenting only with systemic manifestations (high fever $> 38.5^{\circ}\text{C}$, anorexia and asthenia). Thoracic and abdominal angiography were negative. ESR was 96 mm/hr.

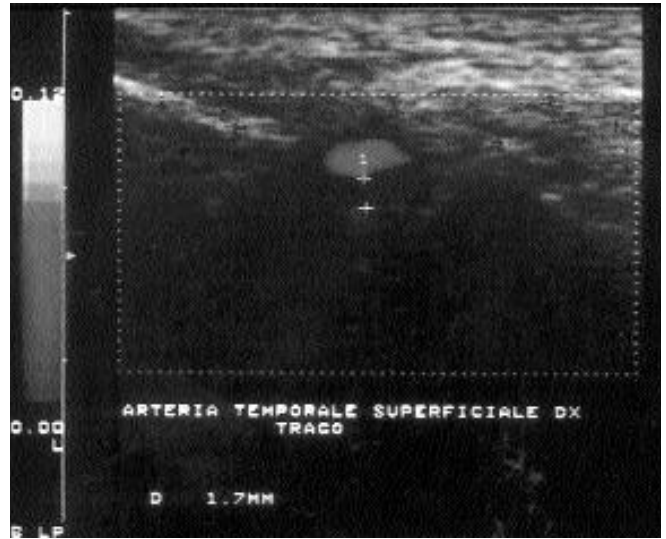


Fig. 1. Aortic arch abdominal colour Doppler sonography. Presence of a thickening of the left common carotid artery walls with a surrounding circumferential hypoechoic halo of 4 mm at transversal scan (indicated by crosses). The halo is probably due to an edema of the artery wall related to inflammation.

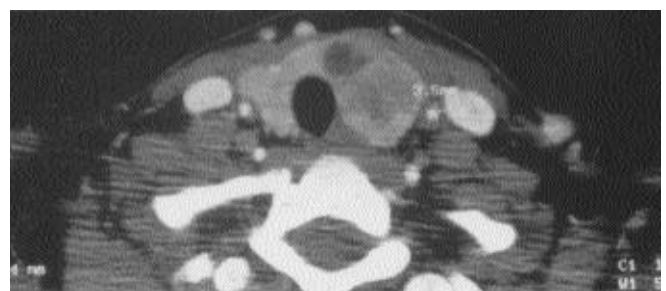


Fig. 2. Contrast-enhanced CT scan. Presence of circumferential wall thickening of 3.5 mm of the left common carotid artery (indicated by a cross).