

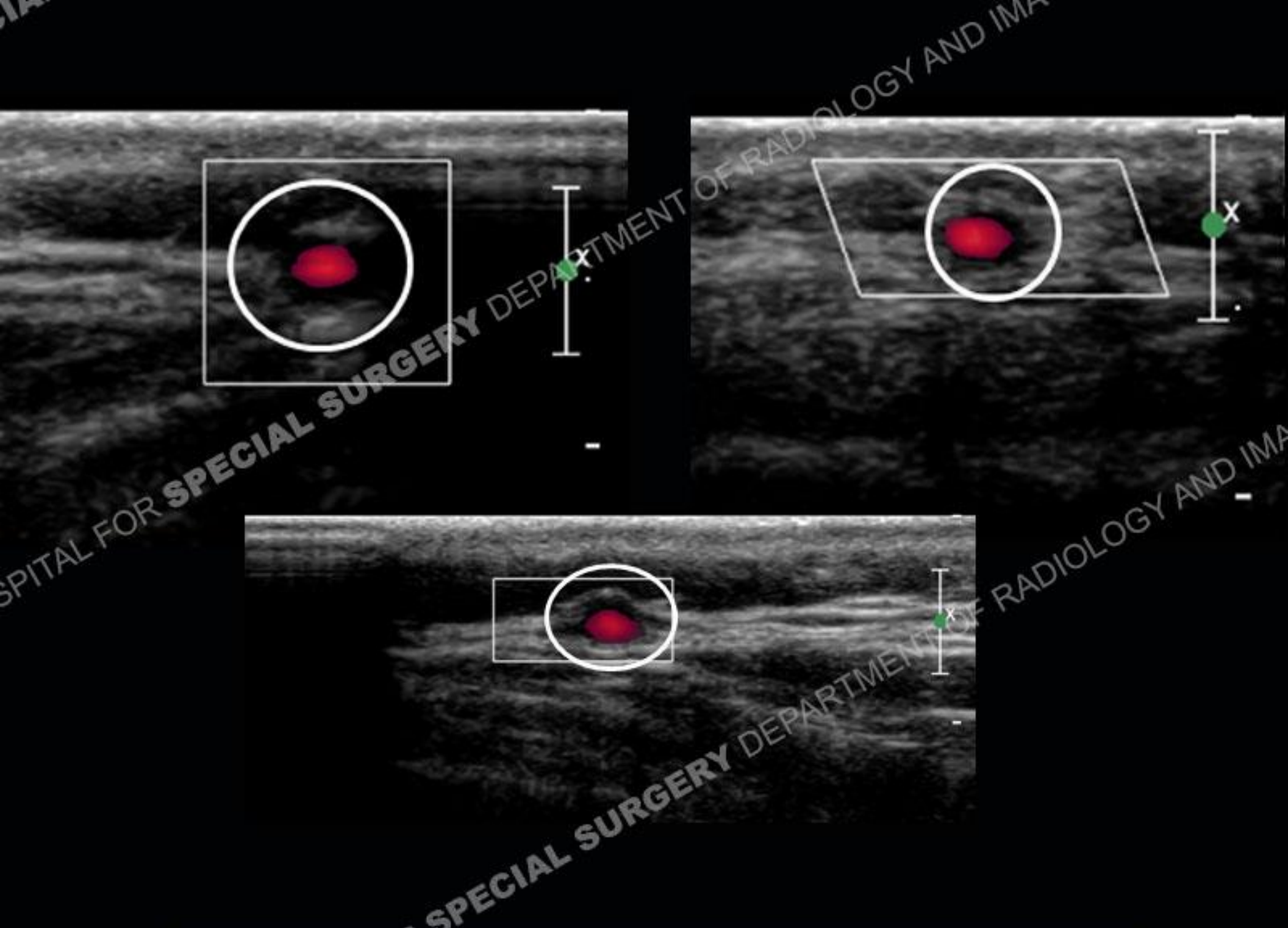
Clinical history

84 year old female with new onset of temporal region headaches

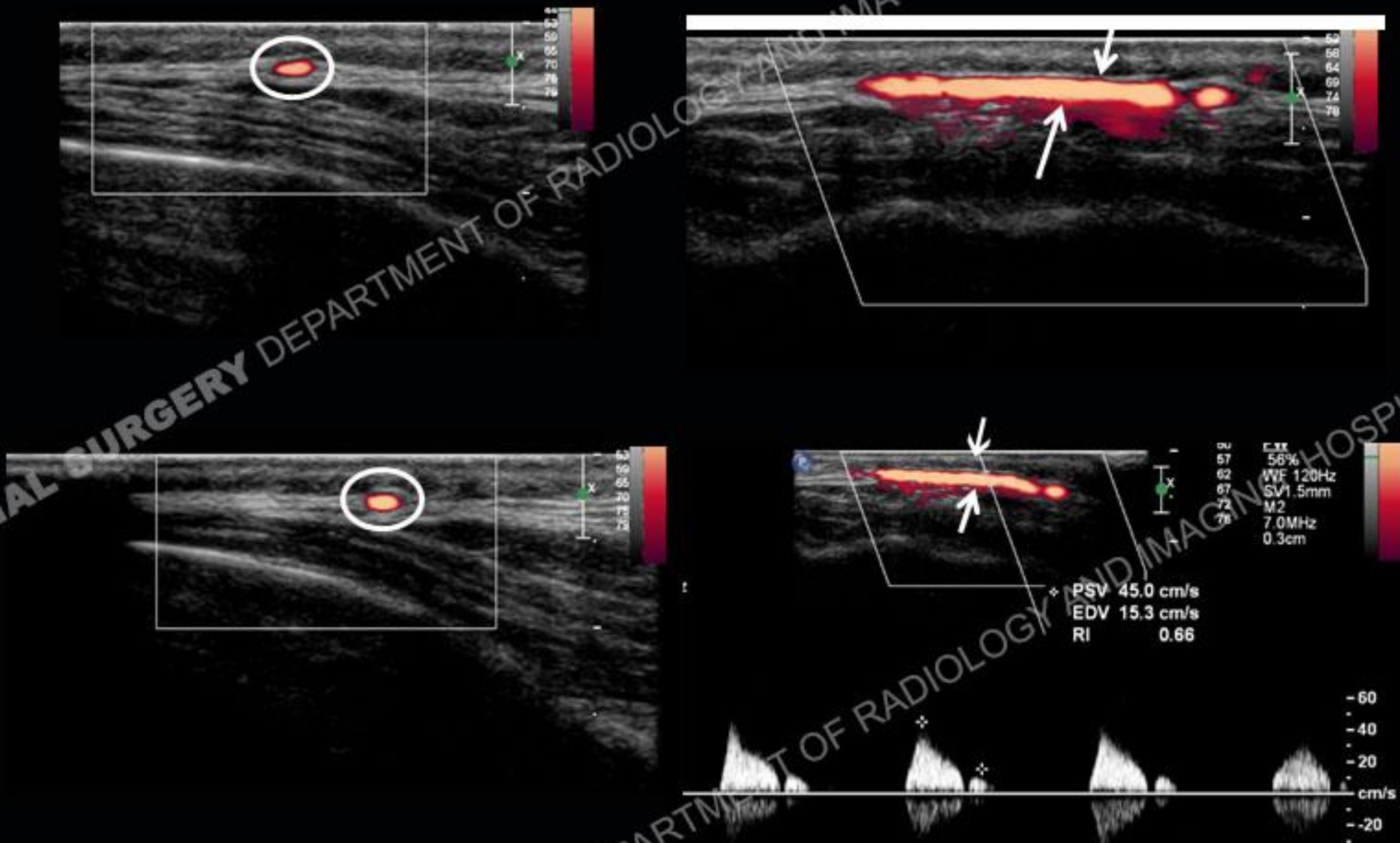
Outside hospital CT scan of the brain was negative

Clinical concern is for possible temporal arteritis and ultrasound was requested



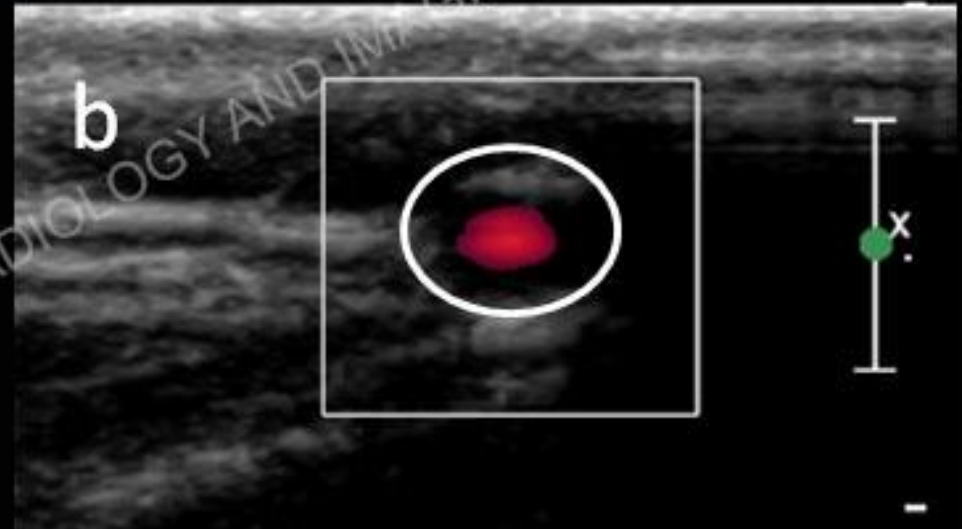
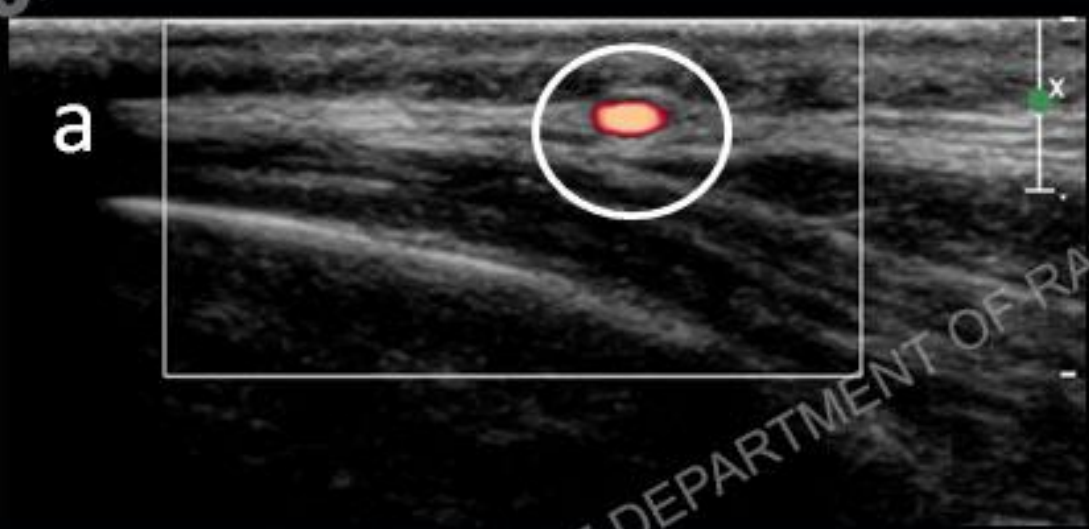


Transverse Power Doppler ultrasound images of the temporal arteries (circles) demonstrate abnormal hypoechoic (dark) tissue encircling the temporal arteries. This is referred to as a perivascular halo and is pathognomonic of temporal arteritis.



Comparison images of normal temporal arteries. Transverse (circles) and longitudinal (arrows) views of the temporal arteries demonstrate the normal vessel appearance.

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Comparison of normal (a) and abnormal (b) temporal arteries, again showing the prominent perivascular halo of inflamed soft tissue surrounding the abnormal vessel.

Diagnosis

Temporal (giant cell) arteritis



Discussion

Temporal arteritis is a common systemic vasculopathy usually affecting patients greater than 50 years of age.

This condition may also involve other vessels including the aorta, carotid, subclavian, vertebral, and iliac arteries and thus “giant cell” arteritis may be a better term.

Temporal arteritis is a chronic vasculitis which predominantly affects the elastic lamina of the vessel.

Pathology evaluation of affected arteries shows transmural inflammation of the vessel wall as well as patchy infiltration by lymphocytes, macrophages, and multinucleated giant cells. This is represented sonographically by the hypoechoic halo described.

Discussion - continued

Patients generally present with sudden onset of a headache, often in the temporal region, that is different in character than any prior headaches.

Patients may also present with sudden onset of painless vision loss, usually unilateral.

If untreated, permanent blindness may result.

