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## True aneurysm of the superficial temporal artery

August Ysa, Amaia Arruabarrena, Maite R Bustabad, Eduardo Perez, Adolfo del Campo, Juan Garcia-Alonso

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## Images in vascular medicine

### True aneurysm of the superficial temporal artery

August Ysa, Amaia Arruabarrena, Maite R Bustabad, Eduardo Perez, Adolfo del Campo and Juan Garcia-Alonso

A 59-year-old female with hypertension presented with an 8-month history of headache and an asymptomatic pulsatile mass on her left lateral forehead (Panel A). There was no prior history of trauma or sepsis. Computed tomographic angiography obtained by the family physician confirmed the presence of an aneurysm of the superficial temporal artery (STA) (Panel B, arrow). Laboratory studies (leukocyte count, VDRL, C-reactive protein, immunoelectrophoresis, anti-nuclear and anti-smooth muscle antibodies) were normal. Subsequent imaging did not reveal aneurysms in other regions. Ultrasonography showed a  $1.5 \times 1$  cm saccular aneurysm of the STA containing mural thrombus. The aneurysm was resected under local anaesthesia (operative findings, Panel C).

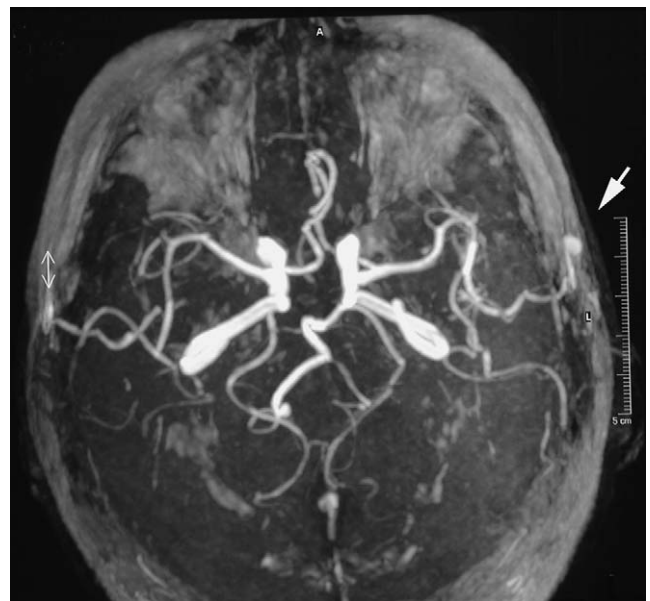


Panel A

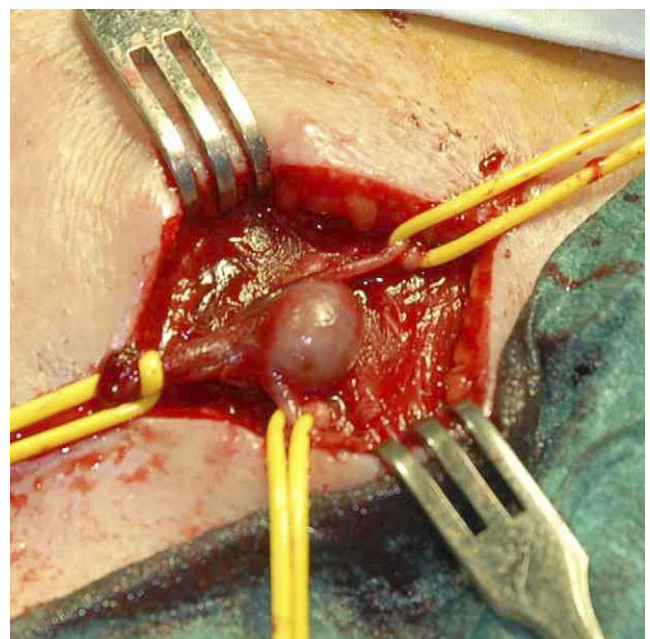
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Panels A-C are available to view in color online at <http://vmj.sagepub.com>



Panel B



Panel C

Operative cultures were negative. Histopathological examination confirmed a true aneurysm of the STA with atherosclerotic characteristics. The postoperative period was uneventful.

True aneurysms of the STA are extremely rare.<sup>1</sup> Most superficial temporal artery aneurysms are pseudoaneurysms commonly involving the anterior branch of the STA and related to prior blunt or penetrating trauma to the side of the head.<sup>2</sup> Most individuals with STA present with an asymptomatic pulsatile mass, although it can occasionally present with a throbbing headache or ear discomfort. Pain, dizziness, bleeding and neurologic deficits have also been described. The diagnosis is easily established by physical examination and confirmatory imaging. Differential diagnosis includes lipoma, cyst, haematoma, abscess, inflamed lymph node, and neuroma of the supraorbital nerve.<sup>3</sup> Once diagnosed, repair of these aneurysms is generally recommended, although precise criteria for surgery are not established. Ligation of the feeding vessels followed by excision is the recommended treatment, as the rich facial vascular supply makes reconstruction of vessels unnecessary. When sur-

gical resection is likely to be difficult because of the depth of the artery or its proximity to the facial nerve and the parotid gland, selective catheter embolization is an alternative option.

## References

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- 3 Evans, CC, Larson, MJ, Eichhorn, PJ, Taylor, S. Traumatic pseudoaneurysm of the superficial temporal artery: two cases and review of the literature. *J Am Acad Dermatol* 2003; **49**: s286–s288.

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