

Traumatic pseudoaneurysm of the superficial temporal artery

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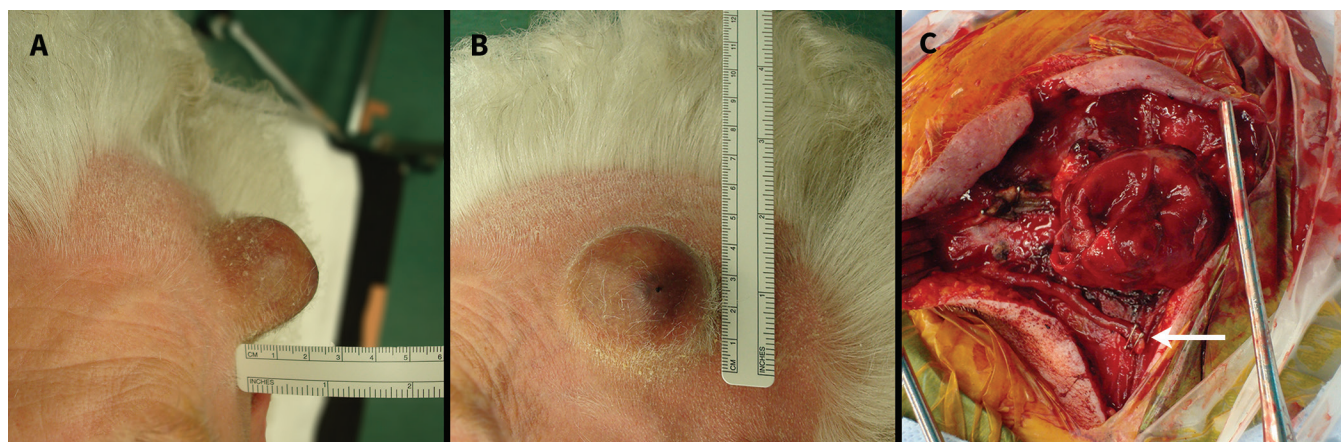


Figure 1: Anterior (A) and lateral view (B) of a 4.5 cm superficial temporal artery pseudoaneurysm in an 84-year-old woman. The pseudoaneurysm was surgically treated by proximal clipping of the superficial temporal artery (white arrow) and subsequent resection (C).

An 84-year-old woman with dementia fell at her nursing home and subsequently developed a sizable, pulsating lump on the left side of her forehead (Figure 1A, 1B). When the lump failed to resolve over 1.5 months, she was referred to our neurosurgery service. Based on the patient's history and findings on physical examination, we concluded this was an exceptionally large superficial temporal artery (STA) pseudoaneurysm. The lump was located in the typical position for an STA pseudoaneurysm: a vulnerable region with minimal tissue protection, where the anterior branch of the artery crosses the superior temporal line between the temporalis and the frontalis muscles.¹ We proceeded to surgical treatment without delay for further imaging. After careful dissection, while looking out for any potential feeding vessels or venous drainage, we clipped the STA (Figure 1C, white arrow), and opened and resected the pseudoaneurysm without complication.

STA pseudoaneurysms are very uncommon posttraumatic entities usually associated with sporting activities in young men or recurrent falls in older patients.¹ The differential diagnosis includes cyst, lipoma, abscess, simple hematoma, arteriovenous fistula, vascular tumour and aneurysm/pseudoaneurysm of adjacent arteries.¹ Although ultrasound is an adequate noninvasive and readily available diagnostic tool,² an STA pseudoaneurysm may be diagnosed based on appearance alone. Surgical resection is highly successful, but alternative treatment modalities may be considered.³ In the acute phase, small pseudoaneurysms can be managed with com-

pression alone; however, Kim and colleagues suggest surgery if there is hemodynamic instability. Chronic pseudoaneurysms can be injected with thrombin, or surgically resected, depending on the patient's clinical status and preference. Endovascular embolization is feasible in pseudoaneurysms that are difficult to approach.³ In the current case of a nursing home resident with dementia, we opted for a direct, practical and curative surgical solution.

References

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The authors have obtained consent from the patient's power of attorney.

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