An Unusual Bump on the Head: Spontaneous Superficial Temporal Artery Aneurysm

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Abstract This case report describes a spontaneous superficial temporal artery aneurysm. Although characteristically post traumatic in nature, in the absence of trauma, a spontaneous superficial temporal artery aneurysm can form part of the differential diagnosis when confronted with a pulsatile swelling over the temple.

Keywords Superficial temporal artery · Aneurysm · Atherosclerosis

Submission

An 84 year old female presented to our general surgical outpatient department with a two year history of a well defined, painless, pulsatile swelling over her left temple. There was no history of preceding trauma to the region; however, the lump had increased in size over the last six months. Ultrasonography demonstrated a left superficial temporal artery aneurysm measuring 15 millimetres in diameter. Under local anaesthetic, both the proximal and distal artery was exposed, ligated and the aneurysm excised (Fig. 1). The postoperative period was uneventful and histopathological evaluation of the artery revealed true aneurysmal dilatation (Fig. 2) with degenerative and atherosclerotic vessel changes.

Since its first description by Bartholin in 1740 [1], fewer than 200 cases of superficial aneurysms of the superficial temporal artery have been reported in the English literature

[2]. Over ninety-five percent of these cases are post traumatic in nature and follow blunt or penetrating head trauma [3]. Most superficial temporal artery aneurysms are false aneurysms and present within two to six weeks of the

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injury [4]. It is the intimate course of the superficial temporal artery over the temporal bone that makes it vulnerable to injury [3].

Our patient however, presented with a spontaneous aneurysm having denied any recent history of trauma. These rarer occurrences are usually atherosclerotic in origin [5]. This is reflected on histopathology as the lumen is surrounded by all three layers of arterial wall. This case highlights that even in the absence of trauma; a spontaneous superficial temporal artery aneurysm can form part of the differential diagnosis when confronted with a pulsatile swelling over the temple.

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