



A simple method for treating ear arteriovenous malformation

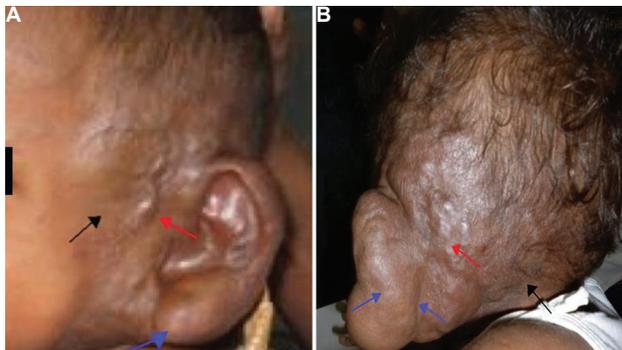


Fig. 1. (A) Enlarged left pinna and dilated left ear lobule (blue arrow), dilated and tortuous vessels anteriorly (red arrow), seen around the ear up to lateral one-third of the face (black arrow). (B) Distorted architecture of posterior aspect of ear, enlarged pinna and obliterated left post auricular sulcus (blue arrows) and dilated tortuous vessels (red arrow) seen to the visible extent of the lesion (black arrow).



Fig. 2. Three rows of circumferential back stitch around the left ear (black arrow) including all the visible dilated tortuous vessels in the periphery. Back Stitch is a type of stitch where needle goes back and forth along the stitch line, thus avoiding gaps in the sewn area.



Fig. 3. (A) Six-week postoperative images showing preserved left ear architecture and reduced lobule size (red arrow), absent dilated and tortuous vessels (blue arrow). (B) Healed posterior aspect (black arrow), delineation of post-auricular sulcus (red arrow) and reduced size of the pinna.



Fig. 4. Seven years' follow up image. Left ear showing a well-preserved architecture and no evidence of recurrence and well-healed scars.

A three yr old male child[†] presented to the department of Paediatric Surgery, Niloufer Government Hospital, Hyderabad, India, in June

2012, with enlarged left ear since birth. Tortuous and dilated vessels were seen extending from the lateral third of the face anteriorly to beyond

[†]Consent to publish clinical information and images obtained from the patient's parent.

midline superiorly and posteriorly (Fig. 1A and B). Investigation confirmed the diagnosis of high-flow arteriovenous malformation (AVM) of the left ear with feeders from superficial temporal vessels, occipital vessels from both sides and other branches of external carotid artery. Excision of the lesion was planned under general anaesthesia but was abandoned intra-operatively. Instead, three rows of circumferential back stitch were applied around the ear to encompass all the peripheral visible tortuous vessels (Fig. 2). Left external carotid artery was also ligated. Sutures were removed after six weeks and patient was followed up at regular intervals (Figs 3 and 4). Subsequent investigation did not reveal any recurrence. High-flow AVMs are embolized preoperatively to reduce the amount of blood loss and ease the dissection. As

an akin to preoperative embolization, this innovative technique was attempted. Major blood vessels got obliterated with back stitch and keeping it for six weeks prevented recanalization of the vessels.

Conflicts of Interest: None.

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Received November 19, 2019