

A Rare Case of Post Auricular Arterio—Venous Malformation.



Medical Science

KEYWORDS : Arterio-venous malformations, Post auricular region, Embolisation, Angiography

Dr.Arun Singh	Resident Department of General Surgery MGM Hospital, MGM University of Health Sciences, Kamothe, Navi Mumbai, Maharashtra, INDIA.
Dr. Adin Chopade	Resident Department of General Surgery MGM Hospital, MGM University of Health Sciences, Kamothe, Navi Mumbai, Maharashtra, INDIA.
Dr.Ali Reza Shojai	Professor & Head Of Unit Department of General Surgery MGM Hospital, MGM University of Health Sciences, Kamothe, Navi Mumbai, Maharashtra, INDIA.
Dr.Raviraj Jadhav	Associate Professor, Department of General Surgery MGM Hospital, MGM University of Health Sciences, Kamothe, Navi Mumbai, Maharashtra, INDIA.

ABSTRACT

Arterio venous malformations are rare in head and neck region and are generally arise from intracranial vessels. We present a case of congenital arterio venous malformation in post auricular region with posterior auricular artery as a feeding vessel that was diagnosed by colour Doppler.

Introduction-

Arterio venous malformation is a common condition seen in all age groups. Arterio-venous (A-V) malformations are a group of conditions, which can have a range of effects on the patient ranging from disfigurement to life-threatening morbidity. A-V malformation of the head and neck are quite rare in contrast to low-flow vascular anomalies, but often present with significant haemorrhage or cosmetic defects. Treatment of these high-flow vascular anomalies with multiple, low resistance shunts which short-circuit the capillary bed is hazardous and has a predictably high incidence of recurrence if not managed correctly. Intervention is indicated for complications such as pain, haemorrhage, pressure symptoms, ischaemic ulceration and even congestive cardiac failure. After Farmer et al. [1], perhaps first reported congenital arteriovenous fistula of the ear in 1956, less than 10 reports dealing with this entity have been published till date and it still remains a rare entity. We present a rare case of a congenital A-V malformation arising from the ear that was successfully treated by surgical excision.

CASE REPORT-

A 24 years female presented with the history of right post auricular swelling since birth. It was associated with pain and headache since 1 year. On examination 8x6 cms, well defined, soft, compressible pulsatile swelling was seen in postauricular region. On auscultation, a thrill was present. A provisional diagnosis of AV malformation was done. Investigations done were colour Doppler and carotidangiography which confirmed the diagnosis of AV fistula. The feeding blood vessel was the posterior auricular artery. Embolisation of the posterior auricular artery was done and after 2 days it was excised. A post-auricular superior based flap was used to cover the defect. Postoperative period was uneventful. AV malformations is a common entity and can occur in various parts of the body including the brain and liver. AV fistulas are rarely seen in the post auricular region.

DISCUSSION -

AVM is rare in the postauricular region but common entity found intracranially with feeding vessels from the intracranial region. AVM's can be divided in two categories. Fast flowing lesions and slow flowing lesions. Fast flowing lesions are predominantly are AV malformations or fistulas where as the vein, capillary and lymphatic lesions show slow blood flow malformations'. It is thought that AVM are present at birth but they usually present in childhood or adolescence'. However some may remain

quiescent and present in adulthood like in our case. AV malformation size can increase secondary to infection, trauma or by hormonal influences such as pregnancy. More over this patient had an increase in size of the AVM following a childbirth, which further proves it to be hormonal dependent.

History, physical examination can be useful in diagnosing superficial AV malformations in the head and neck. This can be confirmed by color Doppler ultrasonography. As far as intracranial AVM's are concerned MRI or MR angiography and or computerized tomography is investigation of choice. If AVM is small and asymptomatic no treatment is required especially in children. For symptomatic AVM complete excision is the treatment of choice. Partial excision usually leads to recurrence. A general practice is to reduce the blood flow from the malformation by selective embolization of the feeding vessel before surgery but in superficial malformations the same can be achieved by simple

ligation of the feeding vessel. Authors describe the above case because of its rarity since there are only three documented cases of AVM from posterior auricular artery in English literatures

CONCLUSION

AV malformation of post-auricular artery in post-aural region is a rare entity. We emphasise that history and clinical examination can suggest a superficial AV malformation of the scalp, which can be confirmed by other radiological investigations. A simple color Doppler sonography can be used to look for the offending vessel with MRI, MR angiography and computed tomography reserved for intracranial cases.