



ISSN: 0976-3376

Available Online at <http://www.journalajst.com>

ASIAN JOURNAL OF
SCIENCE AND TECHNOLOGY

Asian Journal of Science and Technology
Vol. 5, Issue 12, pp.913-914, December, 2014

CASE REPORT

CIRSOID ANEURYSM OF SCALP

^{1,*}Dr. Dinesh Sodhi, ²Dr. Neelima Arora, and ³Dr. Krishna Veer Singh Choudhary

¹Department of Neuro Surgery, SPMC Bikaner, India

²Department of Pathology, SPMC Bikaner, India

³Department of Neuro Surgery, SPMC Bikaner, India

ARTICLE INFO

Article History:

Received 30th September, 2014

Received in revised form

10th October, 2014

Accepted 28th November, 2014

Published online 30th December, 2014

ABSTRACT

Cirroid aneurysm is an AV malformation having abnormal communications between feeding arteries and draining veins without intervening capillary bed in the subcutaneous layer. Cirroid aneurysms of the scalp are rare lesions. They are usually congenital and less commonly post traumatic. The two cases presented with progressively increasing pulsatile scalp swelling and their diagnosis was confirmed by CT and MR angiogram.

Key words:

AVM Arteriovenous Malformation,

MRA Magnetic Resonance

Angiography,

CTA Computed Tomographic

Angiography.

Copyright © 2014 Dr. Dinesh Sodhi et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Cirroid aneurysm of scalp was first described by Breschet in 1833. Breschet suggested the term cirroid from the Greek "kirros" meaning varix. Genesis of AVM is by the faulty differentiation of primitive vessel complex. There is persistence of primitive AV inter connections which are normally replaced by intervening capillary bed (Mc Cormick, 1966). The feeding arteries and draining veins of the region become progressively dilated and tortuous as a result of abnormal hemodynamics. Occasionally the blood vessels undergo aneurysmal dilatation because of increased pressure. The face and scalp have a rich arterial network, so the arterial system supplying the AVM is frequently multiple and complex.

Case history

Two cases of cirroid aneurysm of scalp presented in the department of neurosurgery in the last 4 years.

Case 1

Rajendra, 12 years male child presented with progressively increasing pulsatile scalp swelling in right temporo parietal region for 1 year with throbbing headache.

The swelling was 10*5 cm in size with dilated overlying vessels. Pulsation was evident synchronous with radial pulse. On auscultation a harsh bruit was detected. Examination of other systems was normal. Hematological and biochemical parameters were within normal limits. MRI brain and MRA brain were done which revealed AVM in the subcutaneous plane in the right temporo parietal region (Fig. 1). Total surgical excision was done on 28/06/2014. Histopathology was also suggestive of cirroid aneurysm. On follow up there was no recurrence and the patient was asymptomatic. Operative site was absolutely healthy.

Case 2

Jamuna, 35 years female presented with pulsatile swelling in the left temporo parietal region associated with continuous throbbing headache and abnormal sound from 4 years. The swelling was 15*10 cm in size with dilated overlying vessels. Palpation revealed a strong thrill. On auscultation a harsh bruit was detected. Examination of other systems was normal. Hematological and biochemical parameters were within normal limits. CT head and CTA with 3-D CT were done which revealed AVM in the left temporo parietal region. (Fig. 2). Total surgical excision was done on 30/07/2014. Histopathology was also suggestive of cirroid aneurysm.

*Corresponding author: Dr. Dinesh Sodhi,
Department of Neuro Surgery, SPMC Bikaner, India.

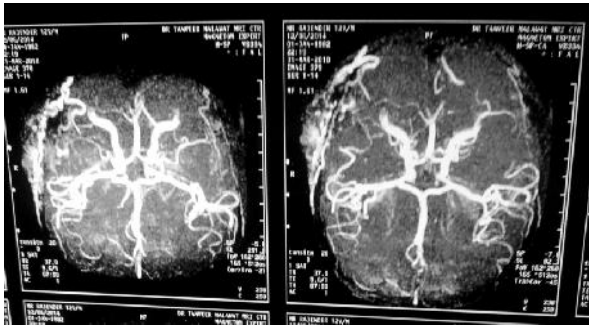


Fig 1. MRA



Fig 2. CTA

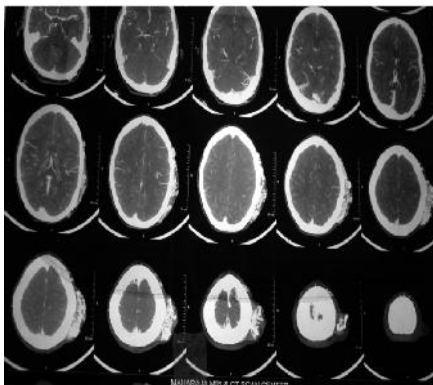


Fig 2. 3-D-CT

On follow up there was no recurrence and the patient was asymptomatic. Operative site was absolutely healthy.

DISCUSSION

AVM of the scalp are relatively rare vascular lesions which are innocuous looking subcutaneous lesions or large, grotesque, pulsatile mass (Wein Zweig, 2000). CTA has been found to be more advantageous than MRA for their diagnosis. Advantages of CT angiography (CTA) include shorter acquisition times, retrospective creation of thinner sections from source data, improved 3D rendering with diminished artifacts.

CTA can also provide a very high temporal resolution and the visualization of the related adjacent bony structures, which may be important in surgical planning (Tebsam, 2004). Management of scalp AVM is difficult because of its high shunt flow, complex vascular anatomy and cosmetic problems. The indications of treatment include cosmetic relief of the pulsatile mass, prevention of hemorrhage and other symptoms such as headache and tinnitus.

Treatment options are (Mc Cormick, 1966). Endovascular occlusion (Wein Zweig, 2000). Surgical resection (Tebsam, 2004). Direct injection of scl erosing agent. Surgery has been treatment of choice for a long time (Rappaport, 1973). Total excision of the extra cranial malformation demands a complete knowledge of the feeding artery, the draining vein and nidus of AVM. We used a wide base scalp flap including uninvolved scalp arteries to prevent scalp necrosis. In all our cases there was no recurrence of the lesion, no skin necrosis and patients were asymptomatic during follow up.

REFERENCES

- Mc Cormick, W.F. 1966. Pathology of vascular AV malformation. *J. Neurosurgery*, 24:807-816
- Rappaport, I. and Yim, D. 1973. Congenital AV fistulas of head and neck: *Arch otolaryngol*, 97: 350-353.
- Tebsam, M. McKinney, A. Truwit, C.L. and Multi slice, C.T. 2004. Angiography in evaluation of extra cranial Intracranial bypass *EUR J. Radial.*, 52: 217-220
- Wein Zweig, N. Ching Palley, J. and Chabrel, F. *et al.* 2000. AVM of the forehead, anterior scalp and nasal dorsum. *Plast Reconstruct Surg.*, 105,2433-9
