

Management of Proximal Anterior Cerebral Artery Aneurysm: Institutional Experience with Review of Literature Tanmoy Kumar Maiti Mch; Shyamal C Bir MD PhD; subhas konar; Hugo G Cueller MD; Anil Nanda MD, FACS

[Institution]



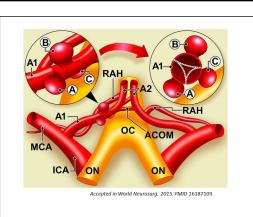
Introduction

The part of ACA between its origin at bifurcation of ICA and ACOM is designated as A1. It is considered as one of the rarest locations for intracranial aneurysms, comprising approximately 1% of all aneurysms. They are characterized by small size at rupture, associated vascular anomaly and multiplicity and often bleb or fusiform in shape.

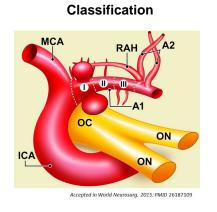
Microsurgical occlusion is challenging because of anatomical variability and presence of perforators. Endovascular surgeons may also encounter difficulties starting from successful negotiation of catheters. In this study, we report our finding of wide anatomical variations, microsurgical and endovascular experience of managing the aneurysms in this location and discuss the strategies for successful management.

Methods

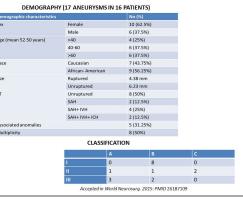
Between January 2000 and October 2014, a total of 17 aneurysms were diagnosed in 16 patients. They represented 1.71% of all patients with aneurysms and 1.19% of all aneurysms in this period. The aneurysms arising from the proximal, middle and distal third of A1 have been designated as I, II and III respectively. Then these aneurysms are subdivided based on the relationship of the origin of the aneurysms on the circumference of A1 and their direction (A, B and C for anterior and antero-inferior; posterior, superior and postero-superior; inferior and postero-inferior respectively).

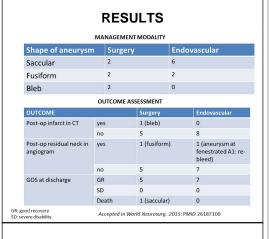






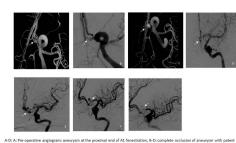
RESULTS



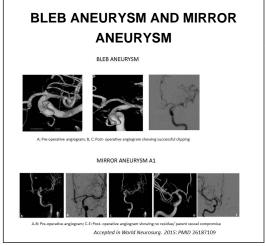


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ANEURYSM AT FENESTRATED A1



t vessels Isepuise view of coiling of aneurysm at proximal end of A1 fenestration during re-do procedure Accepted in World Neurosurg. 2015; PMID 26187109



Conclusions

The paucity of the reports on A1 aneurysms may be because of under reporting and careful review of images may reveal many more numbers in each anomaly group. A detailed knowledge of variable anatomy, presentation, management and outcome will help the surgeon to formulate the management plan.

Learning Objectives

The aneurysms at A1 are infrequent and unique. The outcome is comparable with the available literature and not different from other anterior circulation aneurysms

References

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