

Introduction

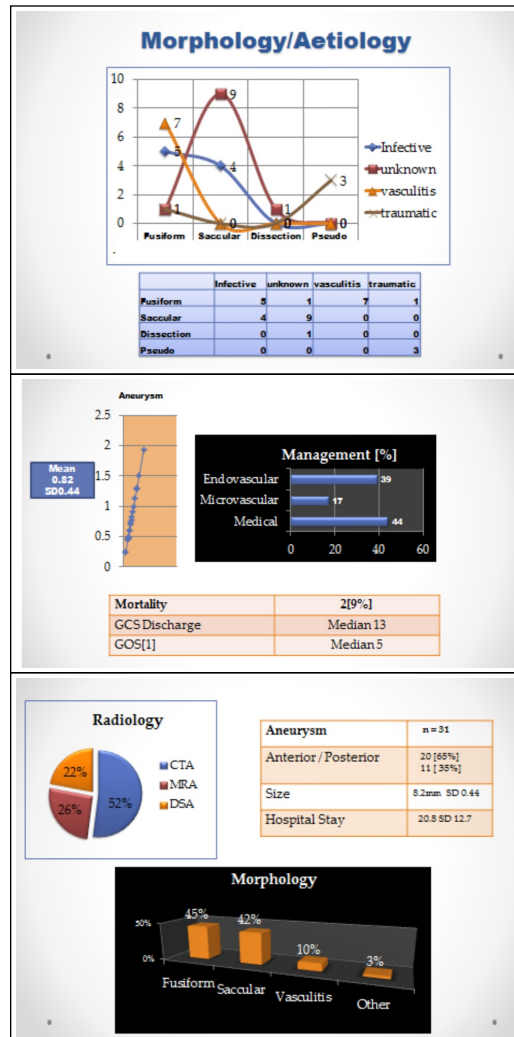
Intracranial aneurysms are rare in paediatrics (= 18 Years). The reported prevalence is 0.5 – 4.6%. We report on the presentation, aetiology, management and outcomes of patients managed at our institutions in a period of transition into endovascular management.

Methods

Retrospective review of medical records of patients treated from January 2003 to February 2016. Data was analysed for demographics, clinical presentation, Glasgow Coma Scale (GCS), radiological features, management and outcomes

Results

Twenty three patients, with a total of thirty one aneurysms were recruited. Mean age was $12.4 \pm [4.5]$. Nine patient were tested for HIV, three positive, one had CD4 <200. Median GCS was 13 with headache and hemiparesis, the most common symptoms. The commonest cranial nerve palsy were third [7, 30%] and seventh [4, 17%]. Radiologically findings showed subarachnoid haemorrhage [11, 48%], infarcts [4, 17%], intracerebral haematoma [8, 35%], hydrocephalus [4, 17%]. FISCHER Grade: Four [3, 13%], Three [7, 30%], One [3, 13%]. Post traumatic were [4, 17%] and unruptured [6, 26%]. Diagnostic investigations were CT cerebral angiogram (CTA) [12, 52%], MRI angiogram [6, 26%], Digital subtraction angiogram [5, 22%]. Aneurysm location was 20 (65%) anterior and 11(35%) posterior circulation. Mean aneurysm size was $8.2\text{mm} \pm [0.44]$. Morphology was fusiform (14, 45%), saccular (13, 42%), dissection (1, 3%), pseudo-aneurysm (3, 10%). Aetiology showed infective [5, 22%], unknown [11, 48%], traumatic [4, 17%], vasculitis [3, 13%]. Ten (44%) were managed medically, four (17%) microsurgery, nine (39%) endovascular. Mortality was 2(9%) one in hospital, associated with re-bleed, one at one month discharge. Median GCS at discharge was 13, mean hospital stay 20.8 ± 12.7 and median Glasgow Outcome Score (GOS) of 17 patients followed up was (GOS5) 12 months.



References

1. Lasjaunias P, Wuppalapati S, Alvarez H, et al. Intracranial aneurysms in children aged under 15 years: review of 59 consecutive children with 75 aneurysms. Childs Nerv Syst 2005;21(6):437–50.
2. Huang J, McGirt MJ, Gailloud P, et al. Intracranial aneurysms in the pediatric population: case series and literature review. Surg Neurol 2005; 63(5):424–32 [discussion: 432–3].
3. Hetts SW, Narvid J, Sanai N, et al. Intracranial aneurysms in childhood: 27-year single-institution experience. AJNR Am J Neuroradiol 2009;30(7):1315–24.
4. Amacher LA, Drake CG. Cerebral artery aneurysms in infancy, childhood and adolescence. Childs Brain 1975;1(1):72–80.
5. Huang J, McGirt MJ, Gailloud P, et al. Intracranial aneurysms in the pediatric population: case series and literature review. Surg Neurol 2005; 63:424–32.
6. Vaid VK, Kumar R, Kalra SK, et al. Pediatric intracranial aneurysms: an institutional experience. Pediatr Neurosurg 2008;44(4):296–301.
7. Herman JM, ReKate HL, Spetzler RF. Pediatric intracranial aneurysms: simple and complex cases. Pediatr Neurosurg 1991–1992;17(2):66–72.
8. Johnston SC. Effect of endovascular services and hospital volume on cerebral aneurysm treatment outcomes. Stroke 2000;31(1):111–7.

Conclusions

Paediatric aneurysms in our review have a predominance of fusiform type, unidentified cause, present good grade and have good outcomes

Learning Objectives

Outcomes of treatment in paediatric aneurysms

