

Outcomes in Paediatric Lenticulostriate Saccular Aneurysms: A Case Report

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Description

The lenticulostriate artery forms a crucial cog in the cerebrovascular juggernaut that supplies the brain. Despite its minuscule diameter and length, the artery is crucial because it supplies the interior capsule. Infarcts or hemorrhagic strokes of this artery are common owing to the small diameter of the artery and therefore the high-pressure gradient experienced in it. Strokes usually result in a hemiplegia or paresis, which may or may not improve over time. The most common cause for a lenticulostriate stroke is uncontrolled hypertension. There are 1823 as a leading cause of spontaneous intracerebral haemorrhage leading to hemiplegia. An uncommon explanation for lenticulostriate bleed may be a distal aneurysm. Aneurysmal bleeds are rare. Only about 36-40 cases have been reported in literature. Most aneurysms of the lenticulostriate artery are fusiform or dissection related owing to the pressure gradient experienced by the artery. Aneurysms are also seen in the backdrop of pathologies of the vascular tree like Moya disease, Vasculitis or Collagen Vascular disease, which predispose the vascular wall to aneurysmal dilatation. Due to the rare presentations as well as diverse nature and morphology of the aneurysms, management protocols are varied. Endovascular stenting with or without coiling is described as superior to surgery in fusiform or dissecting aneurysms, but there is no consensus on saccular aneurysms. Here is an energetic discussion to treat incidental aneurysm with observation and intervene only if the child is symptomatic. We present a case of a 12 yrs. old child who presented with a saccular distal lenticulostriate aneurysm. We managed the aneurysm through a pterional craniotomy and microsurgical clipping of the aneurysm. A 12 yrs old son, the sole son of non-consanguineously married parents presented with sudden onset of weakness (progressing within 15 mins) of the upper and lower limb with multiple episodes of vomiting and drowsy sensorium. Here were no previous hospital admissions or any family

history of vasculitis or recurrent strokes. Later on he was found to be stable, obeying commands with normal speech, mild bradycardia with a 3/5 weakness of the upper and lower limbs. Here were no neurocutaneous markers or cutaneous markers of vasculitis or SLE. The child was immediately admitted in the ICU and stabilized. He was taken up for a CT brain, which showed a bleed in the basal ganglia region. A repeat CT (done on POD 2) showed an infarct over the right basal ganglia and internal capsule region (Figure 4). The infarct was managed conservatively and the child was discharged to follow regular physiotherapy. The child was followed up regularly in OPD and showed steady improvement in power. 3 months later, the child was reviewed in OPD, and was found to have full power in both the upper and lower limbs. A repeat angiogram showed no trace of the aneurysm, and the child now leads a normal and active life.

Conclusion

Lenticulostriate aneurysms is infrequent, yet an intriguing set of disorders with peculiar associations with systemic ailments. A high index of suspicion, careful technique and an honest doctor patient relationship will result in good results. All options, from intervention to observation have shown results. Hence, a tailoring of the modality with the features of each patient with flexibility to change as per the situation is required to bring about the optimal outcome.

How to cite this article: Sen S. "Outcomes in Paediatric Lenticulostriate Saccular Aneurysms: A Case Report". J Pediatr Neurol Med 5 (2020) doi: 10.37421/jpnm.2020.5/139

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Received date: July 25, 2020; Accepted date: July 27, 2020; Published date: July 30, 2020

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