

INTRODUCTION

Childhood arterial ischemic stroke (IS) is rare, with an incidence estimated in 1.7-3 per 100,000. Posterior circulation arterial ischemic stroke (PCAIS) in childhood is less frequent than anterior ischemic stroke (ACAIS). Patients with PCAIS commonly have different risk factors, nonspecific symptoms, and higher recurrence compared to children with ACAIS.

We report a case of an 8 year old boy who suffered recurrent ischemic events in posterior circulation territory secondary to dissection of the left vertebral artery (VA), associating a bone anomaly in atlanto-occipital union. He underwent surgical ablation without complications, and since then remains asymptomatic.

In young patients with recurrent IS secondary to VA dissections despite medical treatment, the association with bone mechanics or anatomic causes should be evaluated.



Fig1. Left paracondylar process, which constricted V3 and V4 segments of the left vertebral artery (LVA).

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PEDIATRIC BOW HUNTER SYNDROME, A CASE REPORT.

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CASE REPORT

A healthy 8-year-old patient presented with headache, nausea and left brachio crural hemiparesis after sports practice, without experiencing any kind of trauma. Restrictive lesions were evidenced on brain Magnetic Resonance Imaging (MRI) along left vertebral artery territory. Brain CT 3D reconstruction showed a left-sided paracondylar process, which constricted V3 and V4 segments of the left vertebral artery (LVA). Dissection of the horizontal portion of V3 and a thrombus within were evidenced by digital angiography. Initial Fig3. Magnetic resonance angiography, MIP technique (a) and 3D treatment consisted of cervical immobilization. Two new ischemic reconstruction (b). A filling defect is observed in the right portion of the distal events in the posterior territory were subsequently identified. basilar artery (a). The distal segment of the left posterior cerebellar artery is The patient underwent surgical removal of the bone defect, with no absent (b). complications, and has remained asymptomatic ever since.



Fig2. Left vertebral artery selective digital angiography, front (a) and side view (b). Fusiform focal dilation in segmeint V3 compatible with pseudoaneurysm. No associated thrombus is detected.







Fig4. CT 3D reconstruction. Pre (a) and postoperative (b) comparison showing complete resection of the left paracondylar exophytic bone spur on the occipital bone.

CONCLUSIONS

Ischemic stroke involving the posterior territory is rare in the pediatric population. Local vasculopathy is the most frequent cause in this age group. Neuropediatricians must be alert to explore cranio-cervical and vascular anatomy with adequate images.





