

## PP71

**Cerebellopontine angle arachnoid cyst treated by endoscopic transventricular approach**

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**Objective:** Arachnoid cysts (AC) account for about 1% of intracranial mass lesions and 5-10% are located at the cerebellopontine angle (CPA). It represents 0,4-0,8% of all CPA lesions. Nowadays the diagnosis has increased due to the easy access to CT and MR studies being frequently observed as an incidental lesion detected in routine exams. Much controversy exists regarding the treatment of AC in these cases where conservative management with regular radiological monitoring may be suggested in order to identify those cysts with gradual enlargement. When signs or symptoms are present it is indicated to treat. Many surgical options have been described in literature: classic microsurgical approach with partial or total removal and marsupialization, shunting to subarachnoid space or peritoneum, stereotactic or endoscopic fenestration.

**Methods:** The endoscopic transventricular approach may be a useful route to fenestrate a CPA AC when enough ventricular enlargement is present for a safe endoscopical passage and the cyst anterior wall comes to the anterior upper one half of the CPA. These route enable the surgeon to perform a III ventriculostomy, visualize the anterior aspect of the cyst and fenestrate it to the CSF basal cisterns. The authors describe this technique used in an infant with a left CPA AC and review literature in Pubmed/MEDLINE database.

**Results:** The authors report the case of a 5 months old girl, with a progressive macrocephaly, bulging fontanelle and Parinaud syndrome. The CT scan and MR images showed a large left CPA arachnoid cyst with brainstem compression and obstructive hydrocephalus. We approached the lesion by a right fontanelle opening, regular III ventriculostomy and anterior cyst wall fenestration. During the procedure we detect a small left AICA aneurysms with no signs of recent bleeding but it was not a obstacle to continue the procedure. The patient had an uneventful postoperative period with recovery from Parinaud syndrome and no sign of intracranial hypertension. We show the CT and MR images before and after surgery and intraoperative video film.

**Conclusions:** The endoscopic transventricular approach may be an option for endoscopical fenestration of some cerebellopontine angle arachnoid cysts when hydrocephalus is present and the anterior cyst wall is located at the anterior and middle CPA. It is an effective and safe procedure with no need for VII-VIII nerves complex and lower cranial nerves dissection.