SAMPLE ABSTRACT TEMPLATE

The principles and practice of neuroendoscopic cysto-cisternostomy for treatment of middle fossa arachnoid cysts : a systematic review of 165 cases.

Dr. Promise Tamunoipiriala Jaja

1. **Department of Neurosurgery, First Moscow State Medical University, Moscow, Russia.**
2. **Directorate of Medical and Dental Services, Rivers State Hospital's Management Board, Port Harcourt, Nigeria.**
3. **Federal Centre of Neurosurgery, Tyumen, Russia.**

Presenter Name: Dr. Promise Tamunoipiriala Jaja

Abstract:

Background: Primarily, arachnoid cysts occur following dysembryogenetic splitting or duplication of embryonic meningeal mesenchyme. They rarely present with symptoms. Usually, symptom onset and severity is dependent on the cyst location, size and presence of cyst complications. The treatment strategies mostly use less-invasive techniques, such as the neuroendoscopic cysto-cisternostomy.

Objectives: We aggregated data on the clinical, radiological and treatment (endoscope type and fenestration modalities, stoma location, number and rationale) characteristics as well as the outcomes of arachnoid cysts.

Methods: A systematic review of the PubMed and Cochrane CENTRAL databases were done on 1st February 2023, according to a prospectively registered protocol (PROSPERO CRD42023394345). The search words (from the keywords; 'endoscopic treatment' and 'middle fossa arachnoid cysts) were combined with boolean operators in our search strategy. Sixty one records were retrieved from PubMed and none from CENTRAL. There were fifteen irrelevant articles after records screening, hence, the fulltext review was on 46 articles (with four additional articles from the review of bibliographies). Eighteen reports (four case reports and fourteen case series) were recruited for the quantitative (using pooled data for 165 participants) syntheses. The Joanna Briggs Institute critical appraisal tools were used for methodological quality and bias assessment.

Results: The reports were mostly of good (15/83.33%) methodological quality. Middle childhood (16.57%) was the modal age group; and there was male (62.72%). The common presentations were headaches (53/29.28%), seizures (30/16.58%) and macrocephaly (25/13.81%). Galassi ll (55/48.25%) and lll (53/46.49%) lesions were predominant. Cyst wall fenestrations were mostly done using bipolar diathermy (31/43.66%) & biopsy forceps (18/25.35%). The locations for cysto-cisternostomy were: between CNIII & ICA (32/25.81%), between CNII & ICA (27/21.77%) and between CNll & tentorium cerebelli

(23/18.55%6). There number of fenestrations were >2 (78/68.42%), two (14/12.28%) or one (22/19.30%). The stoma were expanded mostly with balloon catheter alone (80/73.39%). There were significant clinical (87.50%) improvement, with radiological disappearance (5.33%) and decrease (65.33%) in cyst volume; with 34.47+/-26.90% average reduction in cyst volume.

Conclusions: Mostly good-quality, but low-level clinical evidence, showed MCFAC presenting with headaches, seizures and macrocephaly, in childhood. There were at least two fenestrations done, using bipolar-diathermy/ forceps and balloon-catheter expansion.

Biography of Presenter about 100 words:

Details of presenting author to be mentioned in certificate:

Name: Dr Promise Tamunoipiriala Jaja
Affiliation:
Country:

- **Please to attach a recent high-resolution photograph of the presenting author.**