# Surgical management and outcomes of intracranial arachnoid cysts with different techniques

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## Introduction

Arachnoid cysts are intra-arachnoidal benign lesions which are filled with cerebrospinal fluid. Despite the progress in modern surgical technologies, there are still controversies on the indications and managements of intracranial arachnoid cysts. In this study, we tried to document our clinical series of arachnoid cysts and to discuss the current treatment modalities of these benign lesions.

## Methods

The data of 85 patients with arachnoid cysts who were surgically treated between 1992 and 2012 is reviewed retrospectively. Of the 85 patients, 59 were male and 26 were female, ranging between 2 months and 53 years (mean age 22.3 years). Headache and seizures were the most frequent symptoms, followed by visual failure, urinary disturbances and motor weakness. The cyst was supratentorial in 71 cases while infratentorial in 14 cases.

## Results

Endoscopic cyst fenestration was performed in 20 patients, cystoperitoneal shunt in 52 patients and microscopic cystostomy and/or cyst wall resection in 28 patients. 14 patients who previously underwent microscopic fenestration underwent shunt insertion after the first surgery. Headache was improved in 86% of cases while seizure was under control in 72% of the cases.

## Conclusions

Based on our results, cystoperitoneal shunt is the most effective treatment method in children, but cyst fenestration is more beneficial in adults. Endoscopic or microsurgical fenestration has no difference for clinical outcome. Patients should be individualized for the type of surgical technique according to the cyst location and symptoms. Symptomatic patients should be surgically treated regardless of cyst size or location.

## Learning Objectives

By the conclusion of this session, participants should be able to:

1) properly manage the patients with intracranial arachnoid cysts.

2)select the patients who are appropriate for surgical amangement.

3) identify which surgical method is suitable for each patient.

## References

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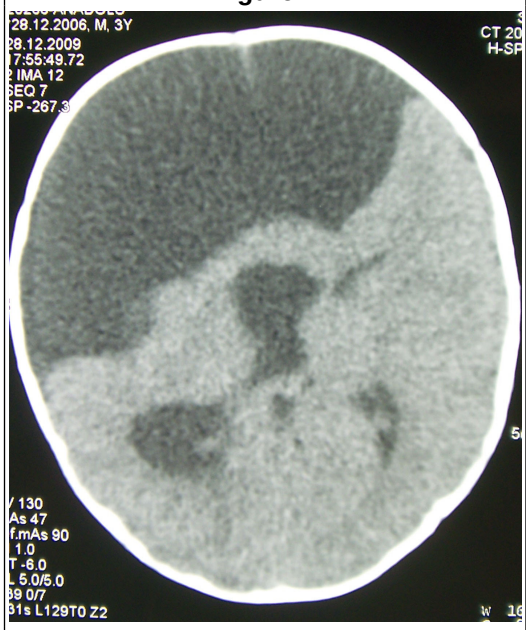
**Figure 1**




Large frontal arachnoid cyst in a child who was treated with shunt.

**Figure 2**

Postoperative CT scan of the giant arachnoid cyst.