

Treatment Options for Third Ventricular Colloid Cysts: Evaluation of Results

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Introduction

Colloid cyst of the third ventricle is a relatively rare intracranial tumor. It generates tremendous interest for the neurosurgeons because of its benign nature, deep location, variety of treatment methods proposed and an excellent prognosis when diagnosed early and excised. We retrospectively reviewed the Suez Canal University experience in treating third ventricular colloid cysts to compare the efficacy of various methods of treatment

Methods

Twenty four patients were included in the study. 14 males and 10 females with a mean age of 33.3 years.

Twenty two patients presented with increased intracranial pressure and two patients were asymptomatic

Tumors size ranged between 3 and 45 mm with a mean of 26.04 mm. 13 patients treated by transcallosal approach, 4 by endoscopic excision, 3 by ventriculoperitoneal shunts only, 2 by stereotactic aspiration, and 2 patients had no treatment

Results

Of the thirteen patients treated by transcallosal resection of their lesions four patients developed transient postoperative complications; one of them developed convulsions and short-term memory deficit which was improved within few weeks of surgery, another patient developed superior sagittal sinus thrombosis and recovered with conservative treatment, one patient had transient hemiparesis and short-term memory deficit,

and the fourth patient had short-term memory deficit improved spontaneously. At final follow-up all patients regained their normal neurologic functions All patients treated by transcallosal approach had complete resection of their lesions without radiological recurrence at the latest follow-up. Four patients were treated by endoscopic resection without complications except one patient developed mild transient left hemiparesis. Complete clinical improvement was achieved at final follow-up. All lesions were completely resected using this method with no radiological recurrence reported at the latest follow-up.

In this study we treated 2 patients

with stereotactic aspiration. The lesions were hypodense in CT scan. There was no recurrence with relatively long follow up period. There were no surgically related complications. Patients remained symptoms free and without radiological progression. Five patients treated without cyst resection or aspiration; three of them had Ventriculoperitoneal shunt insertion for the treatment of hydrocephalus one of them experienced chronic headache and the other patient needed shunt revision for treatment of shunt blockage. In case 22 the shunt was inserted after failure of detecting the cyst endoscopically. In the other 2 patients both of them preferred the shunt only. A 25 years old male presented with symptoms and signs of increased intracranial pressure. lesion resected using endoscopic resection



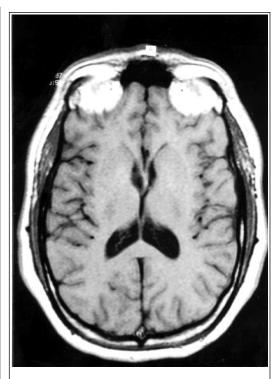
(A) Pre-operative MRI

Conclusions

Endoscopy is an excellent technique for managing colloid cysts. With experience, surgery should be as effective as open techniques, while offering the advantages of a minimally invasive technique

Learning Objectives

By the conclusion of this session, participants should be able to: 1)
Describe the importance of the use of endoscopy in the treatment of third ventricular colloid cyst, 2) Discuss, in small groups, the surgical options for the treatment of colloid cysts



(B) MRI at follow-up