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Original Research Article

Giant Third Ventricular Colloid Cyst: A Case Report

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Abstract

Colloid cyst at third ventricle is a common entity noted in the neurosurgical practice. Presentation ranges from an incidental presentation to patient presenting with comatosed state with sudden acute hydrocephalus. Careful planning either to observe or operate is taken. Surgery ranges from keyhole endoscopic excision to microsurgical excision. Outcome is good if treated appropriately.

Keywords: Colloid cyst, neurosurgical practice, hydrocephalus.

INTRODUCTION

Colloid cysts are relatively rare intracranial lesions located in the rostral aspect of the third ventricle. They may produce acute hydrocephalus, brain herniation, and lead to death. Although the clinical and imaging features of colloid cysts are well known, their etiology and the factors responsible for their imaging features continue to be a subject of debate. We herewith present a case of giant colloid cyst in third ventricle treated successfully by microsurgical excision.

MATERIAL AND METHODS

Our patient a 40 year male presented with headache in the referral hospital. Patient was transferred to our center for further management. On examination patient did not have any deficit.

Patient underwent imaging, a CT scan brain followed by a MRI brain which is as per figures Fig 1 and 2. They clearly established the diagnosis of a third ventricular colloid cyst with obstructive hydrocephalus.

Fig-1: Preop CT scans showing large colloid cyst with hydrocephalus

Fig-2: Pre op MRI showing 4 cm diameter third ventricular colloid cyst

RESULTS

Patient was explained in details about his illness and all risks and benefits of surgical excision were explained to him. Once the family agreed patient underwent right frontal craniotomy and transcortical excision of the third ventricular colloid cyst. An external ventricular catheter was kept for two days in case of any emergency. But patient had uneventful postoperative stay and EVD was removed after 2 days once post op scan was satisfactory and patient with GCS of 15/15.

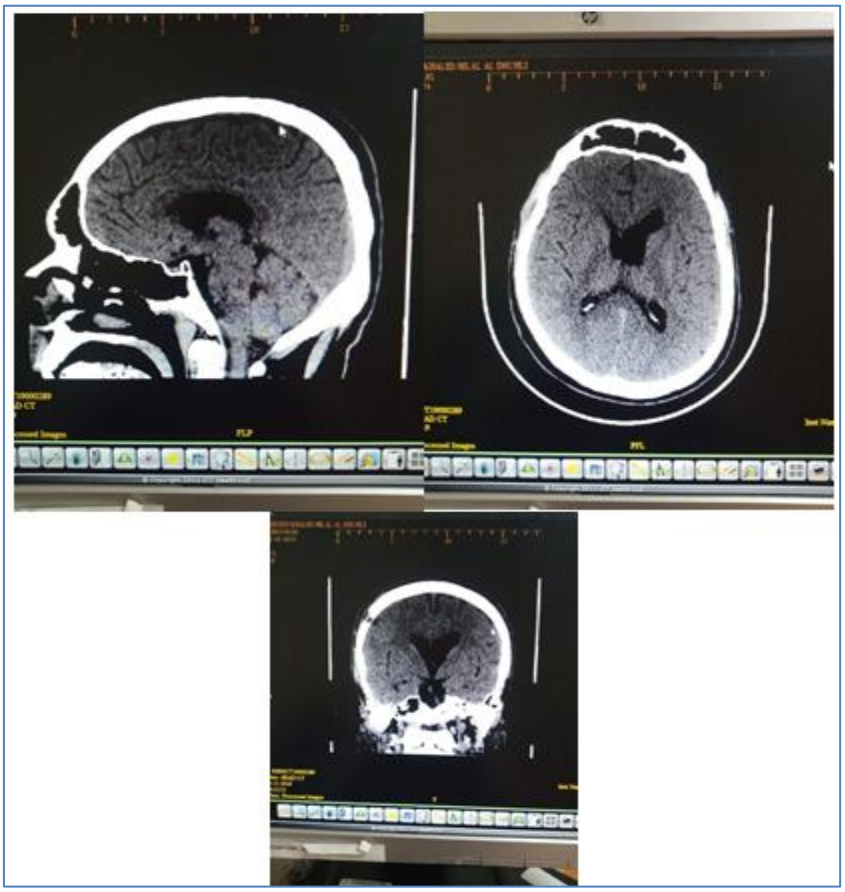

Fig-3: Postoperative CT scan showing complete excision of large colloid cyst

Patient was discharged home after 5 days. He was followed up in OPD regularly and is doing well except occasional mood disturbances which are being managed by behavior therapy unit. Post op imaging is fine with complete excision of the colloid cyst.

Imaging is as per Fig 3

DISCUSSION

Janez *et al.* in 2014 described in their study various clinical presentations of patients with colloid cysts ranging from sudden neurological deterioration to accidental finding in the scan done for some other reason [1]. Syed Ijlal Ahmed in 2018 studied in detail the various third ventricular tumours including collid cyst regarding their clinicopathogenesis[2]. Lach B in 1993did a comparative immunohistochemical study of neuraxis cysts and choroid plexus epithelium. This study indicates that the immunophenotype of epithelium lining colloid cysts is similar to that of other cysts showing endodermal or ectodermal differentiation and to respiratory tract mucosa [3]. Iacoangeli M in 2014 presented their combined endoscopic transforaminal-transchoroidal approach for the treatment of third ventricle colloid cysts with good outcome [4]. Margetis K in 2014 presented their series of endoscopic resection of incidental colloid cysts with an excellent outcome.

CONCLUSION

Colloid cysts are rare intracranial lesions occurring in approximately three individuals per million per year. Clinical symptoms may be intermittent, self-resolving, and nonspecific. Some colloid cysts result in acute onset of hydrocephalus and may lead to sudden death. The most common imaging finding is that of a rounded mass in the anterior aspect of the third ventricle. On CT scans, the lesions are often hyperdense, and their MR imaging features are variable. Treatment remains microsurgical or endoscopic excision and relief of hydrocephalus.

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