Colloid Cyst of third ventricle
Published on 16.01.2007

DOI: 10.1594/EURORAD/CASE.5608
ISSN: 1563-4086
Section: Neuroradiology
Case Type: Clinical Cases
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Patient: 21 years, female

Clinical History:
Computed tomography and Magnetic resonance imaging scans of the brain of a patient with a colloid cyst of the third ventricle are discussed with the clinical history and common presentations . Treatment options are reviewed from a neurosurgical perspective.

Imaging Findings:
A 21 year old woman was admitted to our neurosurgical unit after a CT scan performed as a screening for intermittent headaches of two years duration . There was a history of headaches but no nausea or vomiting. She complained of two episodes where her legs gave way and she dropped to the floor suddenly with transient loss of consciousness. Physical and neurological examination was normal. Results of a full blood count, coagulation profile, a biochemical profile, random blood glucose testing, and dipstix of urine were unremarkable. Computed tomography and Magnetic resonance imaging scans of the brain of a patient with a colloid cyst of the third ventricle were performed.

Discussion:
Colloid cysts are benign tumours that can be a potential source of mortality. They are almost always found in the third ventricle and can cause obstructive hydrocephalus and increased ICP. Presentation age is usually 20-50 years. With the advent of CT scanning and MRI, the number of diagnosed asymptomatic colloid cysts has increased. It is felt that colloid cysts are remnants of the paraphysis, an embryonic midline structure within the diencephalic roof immediately rostral to the telencephalic border. Colloid cysts usually arise in the anterior portion of the third ventricle between the fornices. Colloid cysts are thought to enlarge through increases in their contents. Either the epithelial lining of the cell wall secretes a mucinous fluid or cyst cavities fill with blood degradation products and cholesterol crystals. Patients may be asymptomatic or may present with intermittent headaches. Rarely, patient present as an acute emergency with sudden neurological deterioration secondary to acute hydrocephalus. Headache may be part of the presentation, as well as vertigo, decreased memory, and behavioural changes. In addition, sudden weakness in the lower limbs associated with falls without loss of consciousness has been reported. Sometimes patients present with symptoms of intermittent obstructive hydrocephalus with paroxysmal headache associated with changing head position. Rarely symptoms similar to normal pressure hydrocephalus (e.g., dementia, gait disturbance, urinary incontinence) have been associated with the presentation of colloid cysts. Surgery is often indicated for these lesions and should be performed in a timely manner. The goals are to relieve hydrocephalus and to remove the risk of deterioration in clinical status. This usually occurs in the setting of a large cyst obstructing the Monro foramen. When patients present with few or no symptoms and have small colloid cysts and large ventricles the decision is difficult. In many cases, these patients may be observed conservatively with serial MRIs. Patients
may have small cysts and normal-sized ventricles. These patients are unlikely to deteriorate and do not need surgery. Sudden death associated with colloid cysts has been reported. The risk of sudden death may not correlate to tumour size, degree of ventricular dilatation, or duration of symptoms. The incidence appears to be low. Hence, prevention of sudden death should not be used as an indication for surgery in asymptomatic patients with small cysts and no hydrocephalus. If the patient appears obtunded, urgent ventricular drainage is indicated. Bilateral ventricular drainage is frequently needed. If the patient is stable, CSF diversion is not indicated because enlarged ventricles can facilitate the surgical approach. These lesions can be resected from a transcortical, transcallosal, or endoscopic approach. The prognosis is usually excellent.

**Differential Diagnosis List:** Colloid cyst of third ventricle

**Final Diagnosis:** Colloid cyst of third ventricle

**References:**


Figure 1

Description: CT scan of Colloid cyst of third ventricle close to both foramen of Monro Origin:
Figure 2

Description: contrast CT scan of Colloid cyst of third ventricle Origin:
Figure 3

Description: Origin:
Description: Coronal T2 W MRI scan of Colloid cyst of third ventricle Origin:
Description: Sagittal T1 W MRI scan of Colloid cyst of third ventricle
Description: T1W MRI scan of Colloid cyst of third ventricle with intravenous gadolinium contrast injection Origin: