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Radiodiagnosis

INTRAVENTRICULAR NEUROCYSTICERCOSIS WITH TRAPPED LATERAL TEMPORAL HORN

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ABSTRACT Cysticercosis is a parasitic disease which is known to be epidemic in India. Often it may involves the central nervous system, mostly the brain. The neurocysticercosis (NCC) is known to be a common differential diagnosis for the ring enhancing lesions in the cerebral parenchyma. The NCC in brain depending on the location is classified into three forms namely parenchymal, subarachnoid-cisternal and intraventricular. Entrapment of the temporal horn of the lateral ventricle is well known entity describe in literature. It is secondary to some obstruction at the trigone of the lateral ventricle. Intraventricular NCC causing entrapment of the temporal horn of the lateral ventricle has been described rarely in the literature. We describe a similar rare case of Intraventricular NCC causing entrapment of lateral horn of the lateral ventricle.

KEYWORDS : Neurocysticercosis, Entrapment lateral ventricle.

INTRODUCTION

Cysticercosis is a parasitic disease which is known to be epidemic in India. Often it may involves the central nervous system, mostly the brain. The neurocysticercosis (NCC) is known to be a common differential diagnosis for the ring enhancing lesions in the cerebral parenchyma. The NCC in brain depending on the location is classified into three forms namely parenchymal, subarachnoid-cisternal and intraventricular [1]. The incidence of intraventricular NCC ranges from 0.7 to 33% in literature with the fourth ventricle being the most common site (50%), followed by the lateral ventricles (35%), third ventricle (10%), and aqueduct (5%) [1,2].

Clinical and Imaging Findings

A 36 year old male presented to the out-patient department with the complaints of multiple episodes of generalized tonic clonic seizures in the year 2009. Clinical evaluation did not reveal any abnormal neurological deficits. MRI done revealed multiple ring enhancing lesions with an enhancing eccentric nodule in these lesions (Figs 2a and 2b). A diagnosis of NCC was given and patient was started on antiepileptic and given a course of antihelminths along with the steroids.

The patient was kept on a regular follow up thereafter and in Dec 2014 reported to our centre with sudden onset dysphasia & right sided hemiplegia. A follow up scan done at our center revealed multiple neurocysticerci in various stages. In addition a large CSF intensity cystic lesion was seen in the left temporal lobe. The lesion was seen to communicate with the left lateral ventricle and confirmed to the shape of an enlarged temporal horn. The choroid plexus of the temporal horn was displaced medially. There were other sub centimeter smaller conglomerate cysts within the larger lesion antero-inferiorly. No abnormal enhancement was noted within this lesion. The choroid plexus or the ependymal lining also did not reveal any abnormal enhancement.

A diagnosis of large intraventricular cystiercal cyst with a trapped temporal horn of the lateral ventricle was made based on the appearance on MRI in a known case of NCC.

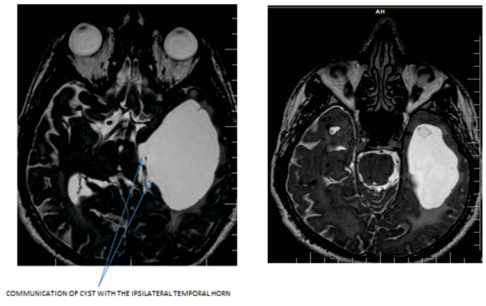

Fig. 1a and 1b- CISS axial images showing a large temporal lobe cystic lesion with communication with the temporal forn of the left lateral ventricle and smaller cysts within the anterior part of the larger cystic lesion

The patient was operated upon wherein the cyst was approached via a left temporal craniotomy & the middle temporal gyrus. Initially finding was of a translucent cyst wall which was aspirated to draw clear fluid out. On opening the cyst wall, we were in the dilated temporal horn of the left lateral ventricle. We then found the well defined cysticercal cyst, antero-inferiorly [Figure 2a]. This was removed in toto [Figure 2b].

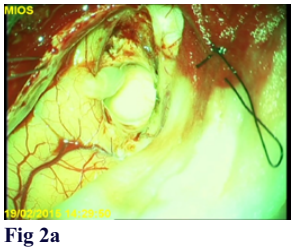

Fig 2a

Fig 2b

On follow-up CT scans, the size of the temporal horn had significantly reduced in size.

HPE done in our institution lab revealed the typical cysticercal cyst wall.

DISCUSSION

Entrapment of the temporal horn of the lateral ventricle is well known entity describe in literature. It is secondary to some obstruction at the trigone of the lateral ventricle. It was first described by Maurice-Williams et al [3] as a form of focal hydrocephalus. Patients usually present with symptoms of either raised intracranial tension or focal deficits like dysphasia and hemiparesis.

Various etiological causes that have been described include choroid plexitis, intraventricular hemorrhage, intraventricular hydatid cyst etc [4-7].

Intraventricular NCC causing entrapment of the temporal horn of the lateral ventricle has been described rarely in the literature. Sunil K Singh et al reported two cases similar to ours. [8] Their case also showed similar findings of a large cystic lesion confirming to the shape of temporal horn. They operated on their patients and intra-operatively aspirated CSF before encountering a thin translucent cyst wall. The cyst was drained subsequently and multiple other daughter cysts were also found inside the larger lesion.

Our case had similar findings with other daughter cysts inside. Our patient was operated.

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