Abstract:
Giant intraparenchymal cysticercosis is a relatively rare condition and surgical treatment may be required when it is associated with elevated intracranial pressure. We report a case of giant intraparenchymal cysticercosis presenting with symptoms or raised intracranial pressure, speech difficulty, difficulty in understanding and following verbal commands. The pre-operative diagnosis was of a cystic glioma. After excision histopathological examination showed a degenerated cysticercus larvae. In conclusion in countries endemic to neurocysticercosis, giant parenchymal cysticercosis should be considered in the differential diagnosis of cystic enhancing mass lesion.

Keyword: Cysticercosis, neurocysticercosis, Taenia solium.

INTRODUCTION:
Neurocysticercosis occurs worldwide but is particularly frequent in North America and India. However, giant parenchymal cysticercosis, a lesion measuring more than 4-5 cm in its largest diameter is uncommon. Usually the size of cysticercus cellulosae ranges from 4-20 mm. Giant cyst often present with elevated intracranial pressure and is an ominous sign and may require surgery. We report a case of giant intraparenchymal cysticercosis presented with increased intracranial pressure and the pre-operative and radiological diagnosis was cystic glioma.

CASE REPORT: A 35 year old male patient, agricultural labour by occupation, non-vegetarian by diet, who was apparently normal 5 years back, developed generalised tonic clonic seizures, 1 or 2 episodes per month taking anti epileptic drug since then. Now came to our outpatient department with complaints of headache associated with projectile vomiting, speech difficulty, difficulty in understanding and following verbal commands. Fundus examination revealed bilateral papilledema. Plain and contrast CT brain showed large
hypodense cystic lesion measuring 5X3X5 cm with enhancing hyperdense nodule on the cyst wall in the left temporal region with mass effect (figure 1 and 2).

PROCEDURE DONE
- Left frontotempo parietal craniotomy and excision of the cyst wall along with the nodule was done and submitted for histopathological examination.

HISTOPATHOLOGY:
- Haematoxylin and eosin stained section revealed a cyst wall of cysticercus. It consisted of an outer cuticular layer with hair like protrusions and a middle cellular layer and an inner reticular layer. The nodule showed reactive glial tissue (figure 4, 5 and 6).

Outer cuticular layer with hair like protrusions a middle cellular layer and an inner reticular layer.

Figure 1 and fig 2

Figure 3-post op CT

figure 4

figure 5
Inflammatory cells and foreign body giant cells

**DISCUSSION:**

Intra parenchmal neurocysticercosis cysts rarely enlarge over 2 cm in diameter, possibly because growth is limited by pressure from the brain parenchyma. Therefore giant neurocysticercosis cyst usually occur in the subarachnoid space and is rare in cerebral parenchyma. Cysticercosis is caused by human tape worm, Taenia solium, which has a complex two-host life cycle. After entering the CNS the cysticerci are viable and elicit very little inflammation. It can remain like this for long time protected by the blood-brain barrier. After variable amount of time the cyst starts to degenerate resulting in inflammation. Cysts cause disease by acting as mass lesions, blocking CSF flow. Most of the symptoms are a direct result of the host inflammatory response due to cyst degeneration. The clinical manifestations depend on the number, location, size and host’s immune response to the cysts. While in the nervous system, the parasite goes through different stages of involution, which include the vesicular stage, a viable parasite with a mild inflammatory reaction. Colloidal stage, a parasite with a scolex in the process of degeneration and a severe inflammatory reaction around it. Granular stage, a parasite with a degenerated scolex and astrocytic gliosis around the cyst. Calcified stage, a parasite transformed into a calcified nodule with intense gliosis. Cysticercus is a liquid-filled vesicle with a 3-layer wall and scolex, although the scolex may not be found. The parasite can adopt 3 different presentations in the nervous system—cystic, racemose, and mixed form. Cystic form refers to the presence of cysts anywhere in the brain; cysts are approximately 7 mm in diameter and may be single or multiple. Their most frequent locations are the leptomeninges and the cerebral cortex. Racemose form refers to the presence of multiple cysts in the basal cisterns where the vesicles can have different sizes, and the cysts can be attached to the meninges. They are aberrant cysticerci with grapelike clusters of cysticerci. They do not have a scolex. Cyst wall grows in an irregular, branching and budding fashion with a diameter of several centimetres. Because of their location, they can produce hydrocephalus, which is caused by inflammation of meninges with subsequent fibrosis and obstruction. They have a poor prognosis, do not respond to drugs and must be surgically removed.

**CONCLUSION:**

Giant intraparenchymal cysticercosis exceeding 5 cm in diameter is a rare condition and present with symptoms of raised intracranial pressure. The clinical and radiological diagnosis is often misleading to that of cystic glioma. Hence in countries endemic to cysticercosis, giant intraparenchymal cysticercus should be thought of in the differential diagnosis of cystic enhancing.
mass lesion and histopathological sections should be extensively searched for the presence of degenerated cyst embedded within the reactive otherwise normal glial tissue.

REFERENCES:

