Tectal Plate Neurocysticercosis - A Rare Case Report

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Abstract: We present a case of young male presented with acute headache, vomiting and blurring of vision in emergency department. Patient underwent MRI Brain which revealed tectal plate neurocysticercosis in granular nodular stage (Stage III) complicated with acute obstructive hydrocephalus and bilateral papilloedema. Although neurocysticercosis is very common neurological parasitic infestation; however mid brain neurocysticercosis are less commonly reported. Isolated tectal plate NCC has not been reported in literature till now.

Keywords: Tectal plate, Neurocysticercosis, Obstructive hydrocephalus

1. Case Report

A 23 year old male presented in emergency department with acute onset headache, vomiting and blurring of vision. On examination patient had bilateral papilloedema and rest of the neurological examination was normal.

Patient underwent MRI Brain which revealed a well-defined ring enhancing lesion in tectal plate measuring 10 x 5.7mm which appears T2/FLAIR hyperintense with T2 hypointense rim (Figure), T1 isointense (Figure), with few foci of blooming on T2-FFE (Figure) with mild perilesional edema. It was causing mass effect in form of effacement of aqueduct of sylvius with resultant dilatation of bilateral lateral and third ventricle with periventricular interstitial edema (Figure). Patient was treated conservatively for raised intracranial pressure and improved and planned for elective shunt surgery later on.
2. Discussion

NCC is the most common parasitic infestation of the nervous system [1]. It is caused by the larval stage of the tapeworm taenia solium. [2] The various CNS manifestations include headache, hydrocephalus, chronic meningitis, focal neurological deficits, dementia and psychiatric manifestations.[3]

Neurocysticercosis has been classified according to location and disease stage. According to location, it has been classified into subarachnoid-cisternal, parenchymal, intraventricular, and spinal forms. Intraventricular neurocysticercosis ranges from 0.7% to 33% of all cases of neurocysticercosis, with the fourth ventricle being the most common site (50%), followed by the lateral ventricles (35%), third ventricle(10%), and aqueduct of sylvius (5%). Isolated ventricular neurocysticercosis often leads to obstructive hydrocephalus and ventriculitis due to ependymal inflammatory response or adhesions due to prior ventricular infestation [4].

In patients with untreated hydrocephalus or diffuse cerebral edema, it is recommended to treat elevated intracranial pressure alone and not antiparasitic treatment. In the absence of elevated intracranial pressure, use of antiparasitic drugs in all patients with viable parenchymal neurocysticercosis is recommended. The management in patients with diffuse cerebral edema should be anti-inflammatory therapy such as corticosteroids, whereas hydrocephalus usually requires a surgical approach [5].

In our patient isolated tectal plate neurocysticercosis was seen which, has not been reported in literature till now, was managed conservatively initially followed by elective shunt surgery.

References