International Journal of Science and Research (IJSR)
ISSN: 2319-7064
ResearchGate Impact Factor (2018): 0.28 | SJIF (2018): 7.426

Tectal Plate Neurocysticercosis - A Rare Case Report

Dr Archit Gupta[1], Dr Anand Somkuwar[2]

[1]MD Radiodiagnosis, Topiwala National Medical College & B.Y.L Nair Ch hospital, Mumbai, India

[2]DM, Neurology, Topiwala National Medical College & B.Y.L Nair Ch Hospital, Mumbai, India

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 pailloedema.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 revealeda well-defined ring enhancing lesion in tectal plate measuring 10 x 5.7mm which appearsT2/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.

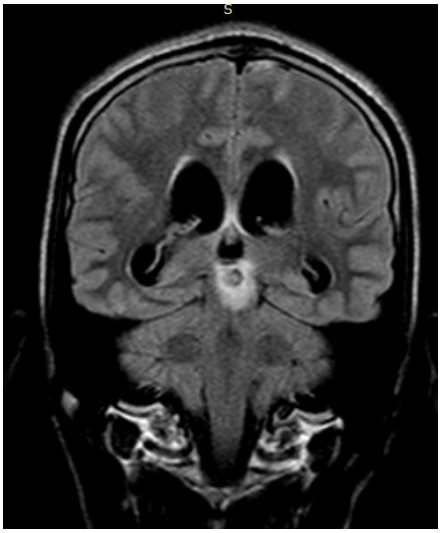

Figure 2: FLAIR CORONAL

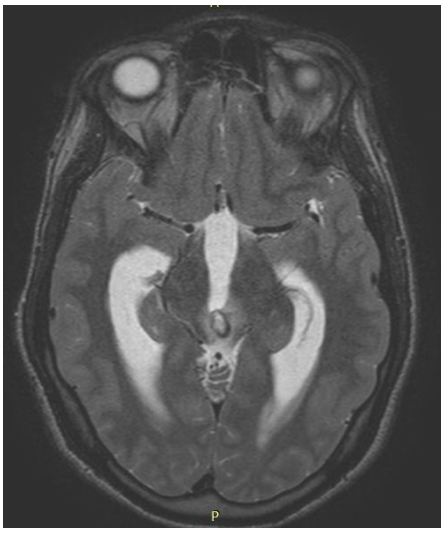

Figure 1: T2 AXIAL

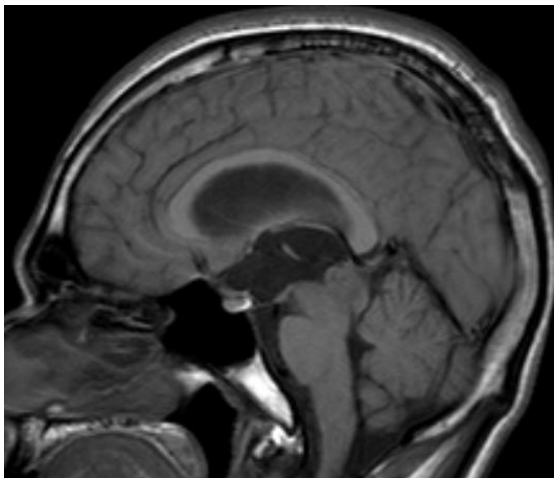

Figure 3: T1 SAG

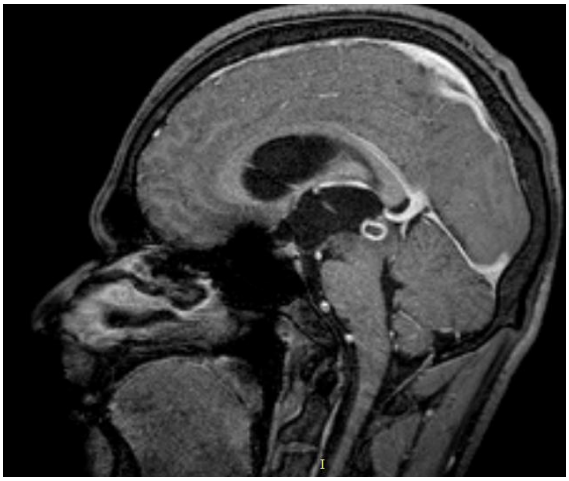

Figure 4: T1 SAG PC

MRI Brain showing T2(Fig 1)/FLAIR(Fig 2) HYPERINTENSE LESION IN TECTAL PLATE appearing T1 ISOINTENSE(Fig 3) and showing post contrast ring enhancement(Fig 4)

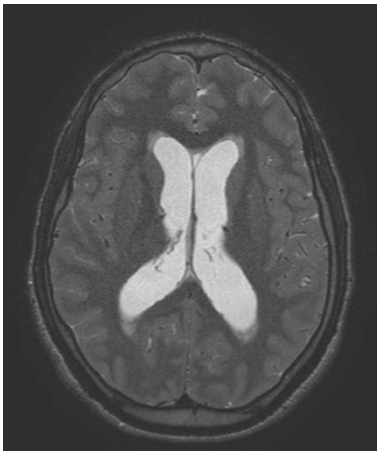

Figure 5: T2 AXIAL

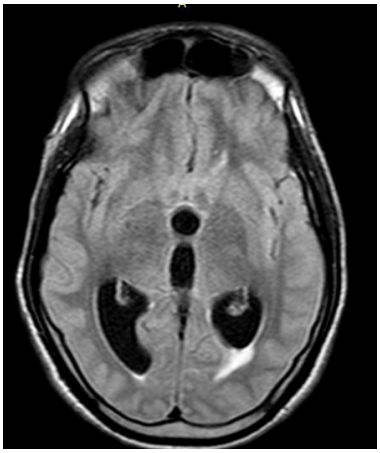

Figure 6: FLAIR AXIAL

Figure 7: T2 AXIAL

MRI Brain showing obstructive hydrocephalus (Fig 5 and 6) with papilloedema (Fig 7)

2. Discussion

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

Neurocysticercosis has been classified according to location and disease stage. According tolocation, 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 fourthventricle 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 hydrocephalusand 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 treatelevated intracranial pressure alone and notantiparasitic 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 surgicalapproach [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

[1] Ajtai B, Fine EJ, Lincoff N. Pupil-sparing, painless compression of the oculomotor nerve by expandingbasilar artery aneurysm: A case of ocular pseudomyasthenia. Arch Neurol. 2004;61:1448–50.

[2] Garcia HH, Del Brutto OH, Nash TE, White AC, Jr, Tsang VC, Gilman RH. New concepts in thediagnosis and management of neurocysticercosis (Taenia solium) Am J Trop Med Hyg. 2005;72:3–9.
[3] Prasad K, Prasad A, Verma A, Singh AK. Human cysticercosis and Indian scenario: A review. J Biosci.2008;33:571–82.
[4] Kimura-Hayama et al Neurocysticercosis: Radiologic-Pathologic Correlation RadioGraphics 2010; 30:1705–1719
[5] White Jr et al2017 IDSA/ASTMH Guidelines • CID 2018:66