

Use of 3D CISS as part of a routine protocol for the evaluation of intracranial granulomas

Dear Sir,

In their recent review article on 3D CISS (constructive interference in steady state) MRI, Hingwala *et al.*^[1] have mentioned the importance of performing this sequence in cases of suspected intracranial cysticercosis. Their remark is of specific relevance to the Indian population as neurocysticercosis is a common cause of different clinical presentations (namely seizures, acute hydrocephalus). We are reminded of the work published by Dincer *et al.*^[2] who were able to find 9.4% ($n=26/134$) new cases of intraventricular obstructive hydrocephalus (IVOH) using the 3D CISS sequence – cases that had been misdiagnosed as extraventricular obstructive hydrocephalus (EVOH) by the conventional sequences. Thus, the management protocol was affected merely by the use of a different imaging sequence. We recently came across three lesions in two patients that would either have been misdiagnosed or had an equivocal diagnosis had the 3D CISS sequence not been used. One of these patients had acute hydrocephalus, while the second had seizures.

The first patient presented with features of acutely elevated intracranial tension. On routine MRI, the impression

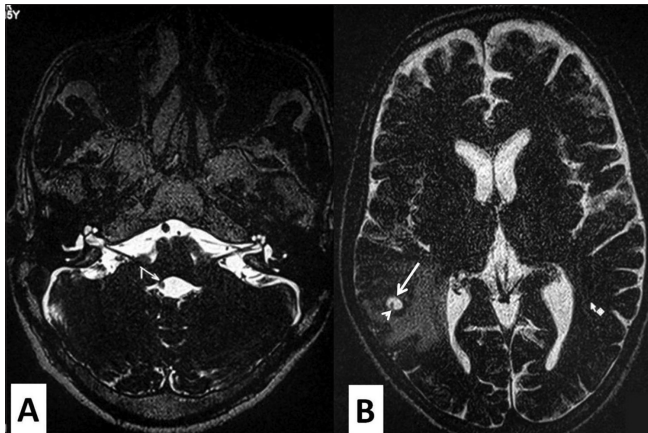


Figure 1 (A,B): 3D CISS sequence performed in two patients on a 1.5T scanner (Somatom Avanto®, Siemens, Erlangen, Germany). Case 1 (A). A cyst with a scolex (arrow) is seen in the fourth ventricle causing acute ventricular obstruction. This was not visualized on routine imaging. Case 2 (B). An eccentric scolex (arrowhead) is seen within a ring lesion (arrow) in the right temporal lobe confirming the diagnosis of neurocysticercosis

was one of EVOH, but on 3D CISS a cysticercus with an eccentric scolex was seen in the fourth ventricle [Figure 1A]. Another smaller incidental lesion in the left temporal lobe further increased the level of confidence for the diagnosis. The second patient presented with recurrent seizures. On imaging, a ring lesion with perilesional edema was seen in the right parietal lobe [Figure 1B]. The specific diagnosis of neurocysticercosis was however achieved only after demonstration of the eccentric scolex on 3D CISS. Based on the existing literature^[1–3] and our own experience, we concur with the opinion of Hingwala *et al.*^[1] and would like to suggest that the axial 3D CISS sequence be a part of the routine protocol for the evaluation of hydrocephalus, intracranial cysts, and ring-enhancing lesions, especially for lesions located in difficult regions.^[3]

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