EP09.10. Obliteration of intracranial translucency: what next to do - Role of 3D in optimising detection of open spina bifida. S. Lakshmy; N. Rose; P. Masilamani; S. Umapathy; T. Ziyaulla Shri Lakshmi clinic and scan centre, Krishnagiri, India

Abstract: Obliteration of intracranial translucency (IT) is an excellent marker for detecting open spina bifida (OSB) and inclusion of IT in routine screening has helped in its early detection. However, in the midsagittal view shadowing from facial bones and the palate makes evaluation of IT difficult (fig a). The spine has been normal in many cases in which IT has not been clearly visualised. This paper describes the additional planes and 3D techniques used in detecting 19 cases of OSB in first trimester. In cases of nonvisualisation of IT, the two steps needed are to confirm the Chiari malformation and to visualise the spinal defect. With the help of Tomographic ultrasound imaging (TUI), changes in axial sections of the brain (ie) expanded choroid plexus with collapsed third ventricle (4), nonvisualisation of aqueduct of Sylvius with the parallel cerebral peduncles (5) and obliteration of the fourth ventricle cisterna magna complex (6) can be visualised in a single planar format.

The lack of ossification of the spine often poses a difficulty for detection of OSB especially when there is normal alignment of vertebra. Intracranial signs are very valuable in identifying subtle spinal defects (fig b & c) which can be easily missed during routine scanning. Though the initial suspicion is always on 2D evaluation, additional 3D imaging gives more robust evidence in confirming OSB.