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Outcome of prenatally diagnosed Cavum velum Interpositum cyst

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Objective

The velum interpositum space represents a potential space between the columns of the fornices and the choroid forming the roof of the third ventricle. If this potential space is dilated, then it is known as the cavum velum interpositum (CVI) cyst. The aim of this study was to report the outcome of the fetuses diagnosed with CVIC in our institute.

Methods

This is a retrospective single centre study. CVIC was diagnosed in the axial view of brain and confirmed in the mid-saggital view after putting color Doppler and demonstrating the course of internal cerebral veins infero-lateral to the cyst. In the five cases of CVIC diagnosed in one year, we did antenatal neurosonogram and detailed anomaly scan to rule out other structural abnormalities. Follow up scans to see the evolution of CVI cyst and postnatal fontanelle scan was done in all the cases. The babies were followed up till 12 – 18 months of age.

Results

In all five cases, the midsagittal view allowed visualization of the cyst below the splenium of the corpus callosum and posterior to the cavum septi pellucidi and cavum vergae. In the 1st case, the CVIC was an isolated finding which disappeared in the third trimester-at 29 weeks. In the 2nd case, CVIC was associated with bilateral ventriculomegaly and single umbilical artery. Amniocentesis was done for fetal karyotype which was normal. Ventriculomegaly was stable till 30 weeks followed by a normal postnatal neurosonogram at one mnth and the baby is doing good till our follow up of 16 months. In the 3rd case the ventriculomegaly and the size of the cyst increased progressively and the neonate underwent postnatal ventriculo-peritoneal shunting. The baby is now 18 months and is doing good. In the 4th case of CVIC, there was an associated finding of left small deformed ear (microtia) and the patient terminated the pregnancy. The fifth case was referred at 35wks for midline cyst in the brain. It was diagnosed as dilated septum pellucidi and the baby now 14 months old is normal.

Conclusion

The antenatal diagnosis of CVI-cyst is a rare finding, with few reports published on the outcome of such fetuses. In our study, neurological outcome of all 4 cases which continued pregnancy was normal. Except one patient who terminated pregnancy for an extra CNS anomaly of deformed ear, all the other four cases did well.