

Connatal cyst : Antenatal findings and differential diagnoses

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Case report :

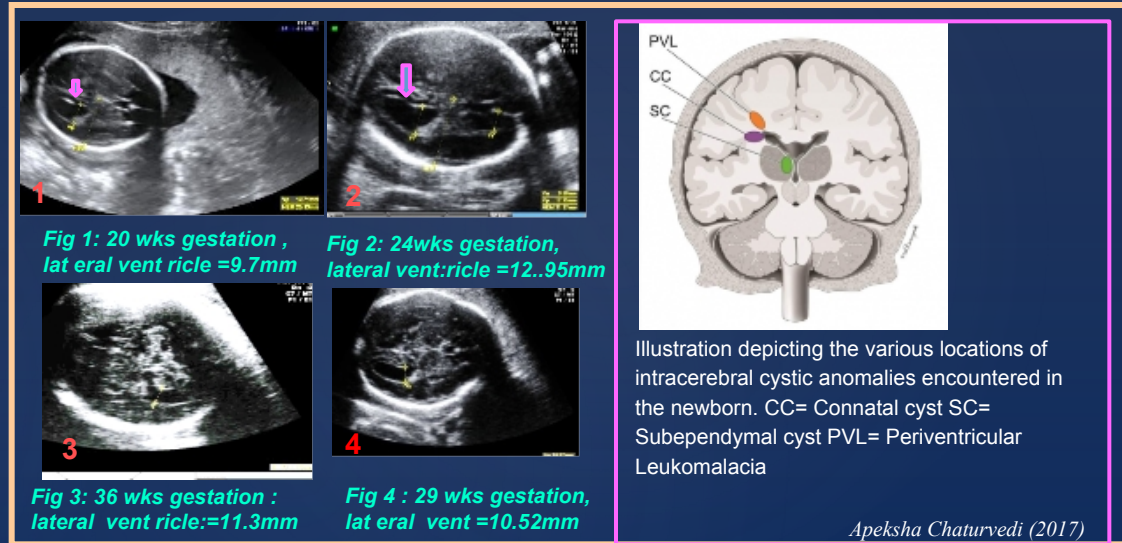
Patient was a 36 year old Chinese, gravida 1 para 0 with no medical comorbidities. On the 20 weeks fetal anomaly screening scan, left posterior horn of lateral ventricles was found to be prominent at 9.8 mm. On the follow-up scans at 21 weeks and 24 weeks, it measured 10.1 mm and 11.9 mm respectively. There was no other structural abnormalities, skin oedema, intracranial or liver calcification. Middle cerebral artery peak systolic velocity was normal. TORCH returned negative results. Follow-up growth scans showed foetus to be growing well with only isolated mild ventriculomegaly.

She delivered via emergency LSCS at 40⁺³ weeks, to a male baby, 4145g.

Postnatal cranial ultrasound on D1 of life revealed a left connatal cyst measuring 12 x 3.4 mm, with no evidence of ventriculomegaly. The baby was discharged well on D4 of life. A repeat scan at 2 months did not revealed any cyst or abnormality

Discussion:

Connatal cysts are also known as coarctation of the lateral ventricles and frontal horn cysts. They are cystic areas located at or just below the superolateral angles of the frontal horns or body of the lateral ventricles and are mainly anterior to the foramina of Monro. In the index case it presented as mild dilatation of the left posterior horn of lateral ventricle, and is posterior to Foramen of Monro. 3D data was collected on the 20 week screening scan as well as in the 3rd trimester, 3D rendering was not possible in our new Ultrasound Reporting System as it had not be set correctly and the image was not in 4D uncompressed or Dicom format.



However, on certain axial sections of the lateral ventricle, a pointed notch was demonstrated on the medial border of the posterior horn. It was probably the region of coarctation.

On a 2D image, differential diagnoses to be considered would include : (i) Subependymal cyst which is located below the superolateral angle of the body of the lateral ventricles posterior to foramina of Monro. (ii) Cystic lesions associated with periventricular leukomalacia. These will be located above the angle of the body or frontal horns of the lateral ventricles.

Conclusion

Connatal cysts are rare periventricular cysts that are associated with good neurological outcome. A 3D evaluation on patients with unilateral ventriculomegaly on antenatal ultrasound would contribute to improved diagnosis .