

# What is Amiss? Neurosonogram in a 36-week-old Late Preterm Neonate

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## SECTION 1 – QUIZ

### Case Description

A 36-week-old, outborn, late preterm neonate was admitted to the neonatal intensive care unit. The child had a history of delayed cry at birth and was born to a 28-year-old primigravida.

The mother had only one antenatal visit with no documented antenatal sonograms available. Her folic acid and iron supplementation was adequate throughout pregnancy and she had no history of antepartum diabetes or eclampsia or any other peripartum complications. The baby was delivered in a nursing home and referred to our center for neonatal care. A neurosonogram was requested on day 8 of admission to look for evidence of hypoxic-ischemic encephalopathy. Clinically, the baby was active, tolerating feeds well with adequate urine output. Neurological examination was unremarkable with no history of seizures. Family history was significant for partial

callosal agenesis in the mother which was documented on a magnetic resonance imaging scan done in her childhood, who otherwise had no neurological deficits.

Transcranial ultrasound revealed parallel orientation of disproportionately dilated occipital horns of lateral ventricle [Figure 1] with narrowed, elongated frontal horns, a high-riding third ventricle [Figure 2] on coronal images. Mid-sagittal sections demonstrated perpendicular orientation of sulci [Figure 3] with absent pericallosal artery [Figure 4]. There was no evidence of periventricular flare, caudothalamic groove hemorrhage, or intraventricular hemorrhage.

### Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient has given



**Figure 1:** Transcranial ultrasound, mid coronal section focused on occipital horns of the lateral ventricle



**Figure 2:** Transcranial ultrasound, mid coronal section focused on frontal horns of the lateral ventricle

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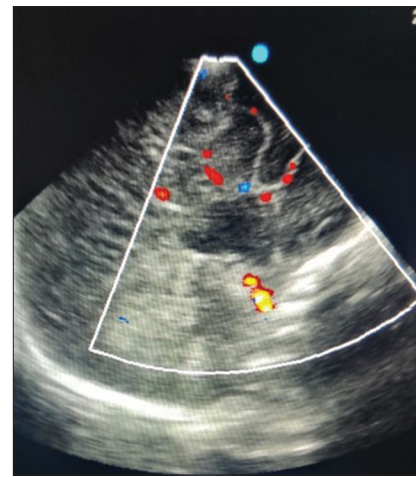
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**Figure 3:** Mid sagittal transcranial ultrasound image

her consent for her images and other clinical information to be reported in the journal. The patient understands that her name and initials will not be published and due efforts will be made to conceal her identity, but anonymity cannot be guaranteed.



**Figure 4:** Doppler image in the pericallosal region

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#### **Conflicts of interest**

There are no conflicts of interest.