Neuronal Dysplasia
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History
Newborn with congenital anomalies.

Diagnosis
Focal Transmantle Cortical Dysplasia (FTCD).

Discussion
FTCD is a malformation that involves the cerebral cortex and underlying white matter to the wall of the lateral ventricle. Symptoms depend upon the location of the lesion but almost all patients have partial epilepsy which is usually refractory to medical management. Signal intensity usually follows that of the cortical gray matter but in infancy the lesions are hyperintense on T1 and hypointense on T2. On sonography, there is subtle distortion of the ventricular margin and focal cortical thickening. FTCD may be a forme fruste of tuberous sclerosis and consequently genetic testing and screening of the skin, kidneys and heart should be performed.

Findings
MRI-Focal T1 hyperintense, T2 and T2FLAIR hypointense mass extending radially from the ventricular margin to the cortical surface.

US (sagittal)-Focally enlarge gyrus which is uniformly isoechoic to adjacent parenchyma.

US (coronal)-Mild ventriculomegaly with flattening of the lateral aspect of the left frontal horn. Note that the septum pellucidum is absent.

Reference
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