Teaching NeuroImages: Congenital membrane causing unilateral hydrocephalus

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Figure 1 MRI shows unilateral hydrocephalus

Axial T2-weighted images (A, B) and coronal T1-weighted image (C) show univentricular hydrocephalus involving the left lateral ventricle (arrows).

A 4-month-old afebrile baby boy was brought in with a history of 2 absence seizure-like episodes since birth. MRI brain revealed unilateral hydrocephalus involving left lateral ventricle (figure 1). Thin coronal and sagittal T1-weighted images showed membrane obstructing left foramen of Monro (figure 2).

Unilateral hydrocephalus is caused by foramen of Monro obstruction due to neoplastic or inflammatory causes and congenital atresia or membrane occluding foramen.¹ Thalamic or intraventricular tumors and tuberculous ventriculitis/ependymitis may cause obstruction. Corpus callosal abnormalities are the commonest association with congenital foraminal

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Figure 2 MRI shows membrane obstructing left foramen of Monro

(A) Coronal T1-weighted image shows univentricular hydrocephalus involving the left lateral ventricle with membrane obstructing left foramen of Monro (straight white arrow). Curved white arrow shows patent right foramen of Monro on sagittal T1-weighted image. Straight white arrow in (C) shows membrane obstructing left foramen of Monro on sagittal T1-weighted image.

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membrane. Surgical options include shunting dilated ventricle, septum pellucidum fenestration, and neuroendoscopic fenestration of occluded foramen.² Final diagnosis of unilateral hydrocephalus due to congenital membrane in foramen of Monro was considered and the patient is awaiting shunt placement.

Author contributions

V. Sivakumar: study concept and analysis and interpretation of data. V. Indiran: study concept and analysis and interpretation of data.

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Disclosure

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