

ganglia or cerebellar involvement may be seen MR imaging. Microencephaly and spastic tetraplegia develops mostly in patients with diffuse involvement, whereas hemiplegia in patients with asymmetric involvement. The clinical outcome is worse in patients with cerebellar and brainstem involvement. Therefore, the symmetry of lesions and cerebellar or brainstem involvement might be used as a prognostic indicators⁵.

The important differential diagnosis of multicystic encephalomalacia is porencephaly and hydranencephaly.

Porencephaly refers to focal cavities with smooth but shaggy walls and minimal surrounding glial reaction^{1,2,7}. To differentiate it from schiencephaly (also known as agenetic porencephaly), it is often referred to as encephaloclastic porencephaly. The latter is the result of insult to the area of brain in late gestation, perinatal or postnatal period^{1,8,9}.

On imaging, encephaloclastic porencephaly appears as smooth walled cavities that the isointense to CSF on all sequences. The cavities are devoid of internal features as septae and the surrounding brain is of normal signal intensity (figure 2).



Figure 2: Axial T2W MR images shows a large porencephalic cyst in the left cerebral hemisphere.

Hydranencephaly is a condition in which most of the brain mantle has been damaged liquefied and resorbed¹⁰ and can be considered as porencephaly of the nearly the entire brain. Thin walled sacs containing CSF lined by leptomeninges replace the cerebral hemispheres^{1,2}. Multiple causes have been advocated including vascular and infectious (toxoplasmosis and CMV).

Clinically, the head may be normal small or large in size. The child is always mentally retarded.

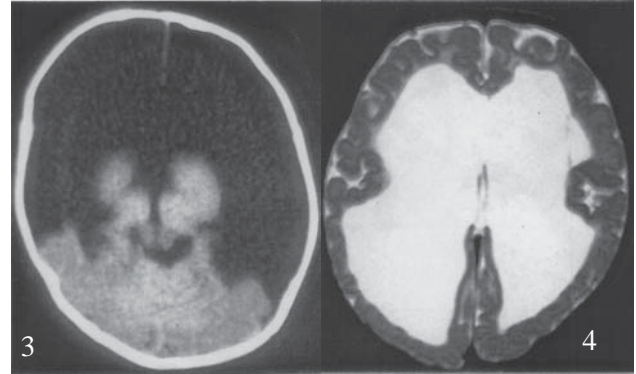


Figure 3: Axial CT image shows a classical case of hydranencephaly with relative sparing of thalami and cerebellum.

Figure 4: axial T2W MR image shows dilated lateral ventricles surrounding by cortical mantle in a case of hydrocephalus.

On imaging, the cerebral hemispheres are nearly completely replaced by CSF^{1,6}. The thalami are usually preserved. The inferior and medial aspects of the frontal and temporal lobes may also be preserved. The brainstem is usually atrophic. The cerebellum is almost always normal (figure 3). Hydranencephaly, sometimes, has to be differentiated from severe hydrocephalus. There is a thin rim of cerebral tissue around the dilated ventricle than can usually be identified only on MR imaging (figure 4).

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