Hydranencephaly in a Newborn with Basilar Artery Occlusion: MRI Findings

**Hidranensefalisi Olan Yenidoğan Olguda Baziller Arter Oklüzyonu: MR Bulguları**

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Hydranencephaly is a rare, isolated abnormality occurring in less than 1 per 10,000 births worldwide [1]. The exact etiology of hydranencephaly is unclear. The most common etiological mechanism is intraventricular infarction of cerebral structures, which is primarily due to the occlusion of the supraclinoid internal carotid artery [2]. Hydranencephaly occurs after the brain and ventricles have fully formed, usually in the second trimester. The brain destruction is complete or almost complete in a bilateral internal carotid artery distribution, with the cerebral hemispheres replaced by fluid covered with leptomeninges and dura. The cerebellum, midbrain, thalamus, basal ganglia, choroid plexus, and portions of the occipital lobes, all fed by the posterior circulation, are typically preserved [1].

The patient whose images are illustrated below was a 1-day-old newborn. MR imaging showed the cerebral hemispheres were absent and were replaced by sacks that were filled with cerebrospinal fluid. Sagittal T1-weighted and coronal T2-weighted scans showed the falx cerebri, tentorium, brainstem, and basis of the cerebellum (Figures 1 and 2). The parts of the brain that were fed by anterior and posterior circulation could not be shown. Basilar artery and bilateral internal carotid artery were not depicted by conventional MR scans, so we concluded that there was occlusion of the basilar artery in addition to hydranencephaly in this case.

**Keywords:** Hydranencephaly, Newborn, Basilar artery

**Anahtar Kelimeler:** Hidranensefali, Yenidoğan, Basiller arter

**Conflict interest statement** The authors declare that they have no conflict of interest to the publication of this article.

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