

# Cerebellar infarction in childhood

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Cerebellar [acute ischemic stroke](#) (AIS) can be a complication of minor [head trauma](#), [vertebral artery dissection](#), [vasospasm](#) or systemic [hypoperfusion](#).

Underlying causes of the ischemic infarct cannot be explained in nearly half of the cases. An accurate diagnosis is essential to ensure appropriate treatment.

CT scan usually is negative a few hours after acute infarction. Magnetic resonance imaging (MRI) is superior to CT scan for posterior fossa lesions and also in the acute phase of cerebellar stroke especially in children.

Vafaeeshahi et al. reported a 9 yr old girl referred to the Pediatric Emergency Room, Moosavi Hospital, Zanzan, [Iran](#) in January 2017 presenting with sudden onset of headache and recurrent vomiting, ataxia, and a history of 3 consecutive days of fever and malaise. In the report of MRI, there were abnormal low T1 and high T2 signal intensities in the left cerebellar hemisphere involving superior and middle cerebellar peduncles. After 4 days of admission, the patient became drowsy, symptoms progressed, and transferred to the pediatric intensive care unit (PICU). The patient underwent hemispherectomy surgery of the left cerebellar hemisphere because of acute obstructive hydrocephaly. After 5 months of occupational therapy, the force of her extremities was normal and the ataxia completely disappeared. Childhood acute ischemic stroke although rare can happen with cerebellar involvement. Because in our patient the first brain CT scan was nearly normal and a false negative rate for initial computed tomography (CT) scanning of 60%-80% also contributes to missed and delayed diagnosis of childhood AIS, for every child presenting with acute ataxia without identified cause in addition to CT scan, MRI also being ordered and from the beginning besides other causes, stroke be contemplated as a cause of ataxia <sup>1)</sup>.

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A five yr old boy patient of cerebellar infarction after minor head trauma, admitted to emergency serves of BulentEcevit University, [Turkey](#) in 2013. They aimed to remind minor head trauma that causes cerebellar infarction during childhood and to review the important points of the diagnosis, which should be kept in mind <sup>2)</sup>.

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In 1987 Chatkupt et al. reported 3 children with posterior circulation strokes. cerebellar infarction is rare in children; therefore, it was not the clinical diagnosis suspected primarily in 2 of these patients. The diagnostic value and limitations of neuroimaging studies, including computed tomography and magnetic resonance imaging, in cerebellar infarction in children, are discussed. Because 3 patients were examined in a 2 year period in one institution, this entity may be more prevalent than generally believed and should be considered in the differential diagnosis of posterior fossa lesions in children <sup>3)</sup>.

A 13-year-old boy with such a lesion as a complication of basilar artery migraine <sup>4)</sup>.

## References

<sup>1)</sup>

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<sup>2)</sup>

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<sup>3)</sup>

Chatkupt S, Epstein LG, Rappaport R, Koenigsberger MR. cerebellar infarction in children. Pediatr Neurol. 1987 Nov-Dec;3(6):363-6. doi: 10.1016/0887-8994(87)90009-9. PMID: 3508085.

<sup>4)</sup>

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