

E-Pearl of the Week

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August 05, 2009

EEG findings in Moyamoya disease

EEG findings in children with Moyamoya disease are typical. In healthy children hyperventilation during EEG recording generates high amplitude slow waves that disappear when hyperventilation stops. This event is known as "build-up." However, in children with Moyamoya disease, the slow wave reappears after hyperventilation. This reappearance of the slow wave is called "*re-build up*." This phenomenon represents a focal reduction of the cerebral perfusion reserve in Moyamoya disease, which may also cause a transient neurologic deficit in some patients during hyperventilation. The re-build up phenomenon may disappear after bypass surgery.

Reference

Kuroda S, Kamiyama H, Isobe M, Houkin K, Abe H, Mitsumori K. Cerebral hemodynamics and "re-build-up" phenomenon on electroencephalogram in children with moyamoya disease. *Childs Nerv Syst.* 1995;11(4):214-219.

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Disclosure: Dr. Karam reports no disclosures.