

Extensive traumatic thalamic contusions in a child

Sir,

Although the thalamus is one of the most commonly affected region by intracerebral hemorrhage,^[1-4] simultaneous or subsequent bilateral thalamic hemorrhage is rare with only few case reports in the literature,^[5-8] mainly related to hypertension,^[1,3,6,9-11] venous thrombosis^[7] or intravenous administration of tissue plasminogen activator.^[8] A 16-year-old male child presented with the history of free fall from motor cycle while he was a pillion rider. He was unconscious since the time of injury and had multiple episodes of vomiting. He was received in the emergency department about 1 hour after the accident and at the time of presentation to the emergency he had shallow respiration. For respiratory distress, the endotracheal intubation was performed and he was kept on elective ventilation. Neurologically he was in deep coma. Glasgow coma scale was 3 (eye opening-nil, verbal response nil, motor response nil). Extraocular movements were restricted. Pupils were mid-dilated and sluggishly reacting to the light. His other general and systemic examination was unremarkable. Immediate non-contrast brain CT scan showed intracerebral hematoma in the region of the thalamus more on left side, contusion involving the splenium of the corpus callosum, intraventricular hemorrhage and small contusion involving right temporal lobe and mild cerebral edema [Figures 1 and 2]. The child was managed conservatively; however he succumbed to his injuries.

The incidence of thalamic hematomas is a subgroup of hemorrhagic stroke that accounted for 1.4% of all cases of stroke and 13% of intracerebral hemorrhages^[12] and the mechanisms of the hemorrhage have been well-discussed.^[12-14] To best of our knowledge extensive traumatic thalamic hemorrhage has not been discussed. In present case, probably the mechanism for traumatic thalamic injury may probably be similar to that described in cases of hypertensive thalamic hemorrhage, i.e., acceleration-deceleration impact along the long axis of the skull causing shearing injury to perforating vessels in the thalamus.^[15] In addition there would had been injury the corpus callosum against the inferior free edge of the falx cerebri leading to the contusion involving the corpus callosum seen in present case. As in the spontaneous bilateral thalamic hemorrhage, prognosis in traumatic thalamic hemorrhage is poor and depends on neurological findings, accurate calculation of the hematoma volume and size, localization of the hematoma and presence or absence

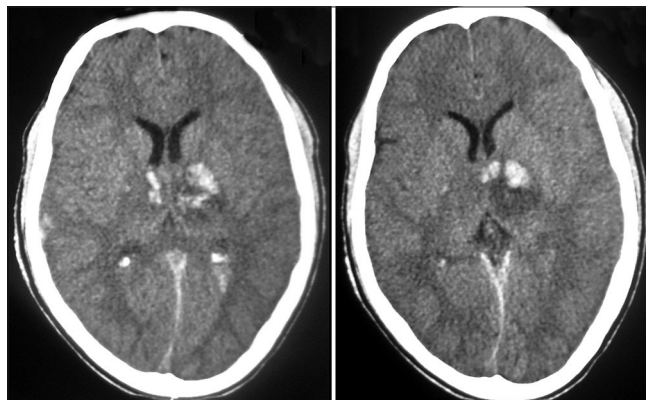


Figure 1: CT scan brain plain showing bilateral thalamic hemorrhages

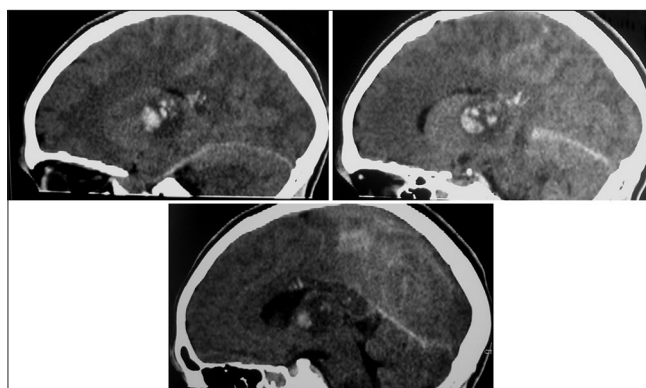


Figure 2: CT scan sagittal reconstruction showing extensive thalamic hemorrhages

of ventricular dilatation as determined.^[1,5,7,10,13,14,16-18] As in present case, initial coma and stupor at onset have clearly been associated with fatal outcome in thalamic hemorrhages.^[3,16,17,19]

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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Access this article online	
Quick Response Code:	Website: www.asianjns.org
	DOI: 10.4103/1793-5482.145107

How to cite this article: Agrawal A, Mittal A, Kohali GB, Sampley S, Singh S. Extensive traumatic thalamic contusions in a child. *Asian J Neurosurg* 2017;12:151-2.