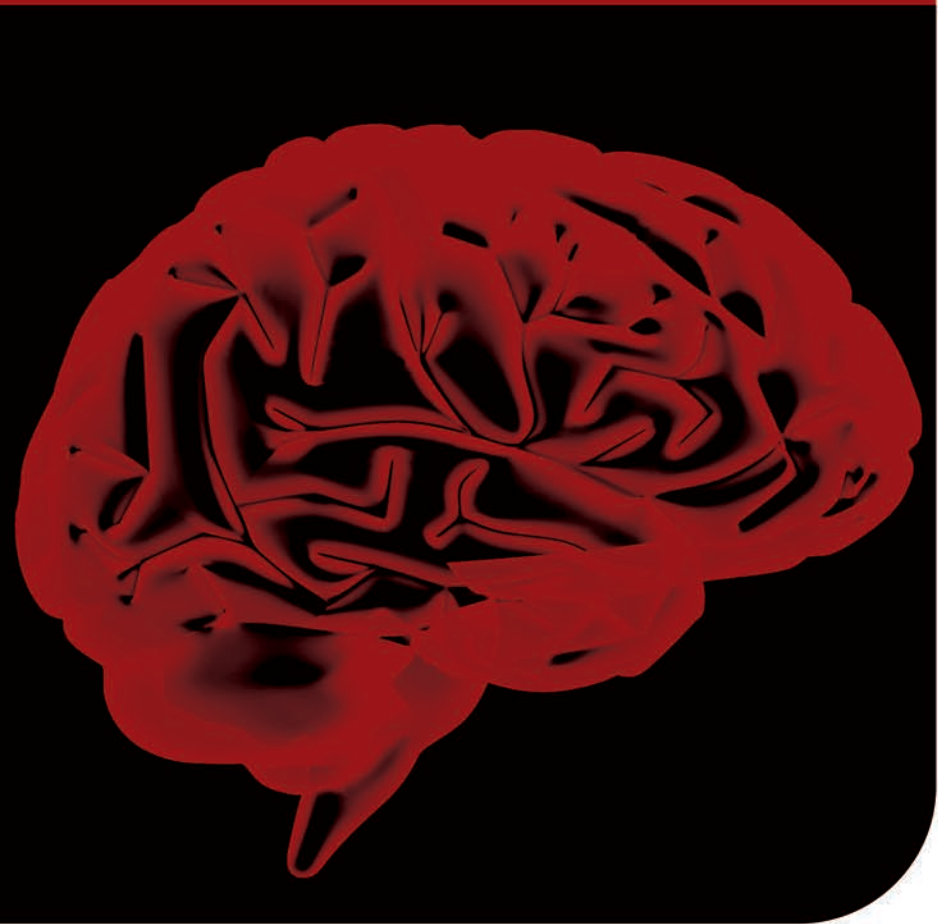


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room for emergency craniotomy. Through bi-coronal skin incision, bilateral frontoparietal craniotomies were performed leaving a 3-cm bone-strip on the sinus sagittalis superior (SSS). The SSS was intact and the exact origin of the hemorrhage could not be identified. The hematoma was evacuated and dural hitch stitches were applied around the lateral edges of the craniotomies. The patient recovered well from the surgery and his triplegia completely improved. Postoperative MRI also revealed that the hematoma was completely evacuated [Figure 2]. The postoperative course was uneventful, and the patient was discharged in a stable condition.

Vertex epidural hematomas (VEH) account for only 8% of all EDH.^[1,2] EDH located in other regions present themselves acutely. However, VEH does not follow the same pattern. The clinical symptoms of VEH may present several days after the trauma. Most cases with VEH present with non-specific signs and symptoms, such as headache and vomiting.^[1,2] A diagnostic dilemma arises from this non-specific symptomatology. The leading symptom is severe headache, although vomiting, sensory complaints, nuchal rigidity, pupil edema, anisocoria, visual changes, seizures, and coma have all been

Vertex epidural hematoma and triplegia

Sir,

A 21-year-old man, a known patient of epilepsy, had a fall and struck his head during a generalized seizure on the day of admission. Neurological examination was unremarkable. An initial computed tomography (CT) of the head revealed neither hematoma nor skull fracture [Figure 1a]. After four hours of observation, the patient was discharged. Twenty-four hours after the injury, the patient was re-admitted to the emergency room with complaints of headache. During this admission, the patient was neurologically intact. Repeat head CT revealed no pathologies [Figure 1b]. Due to progressive headaches, the patient was hospitalized for further follow up. Fifty hours after the trauma, the patient became lethargic with progressive weakness of both legs and the right upper extremity. An emergent cranial magnetic resonance imaging (MRI) revealed a large epidural hematoma (EDH) of the vertex [Figure 1c and d]. Ten minutes after MRI, the patient suddenly became triplegic (both legs and the right upper extremity), and was rushed to the operating

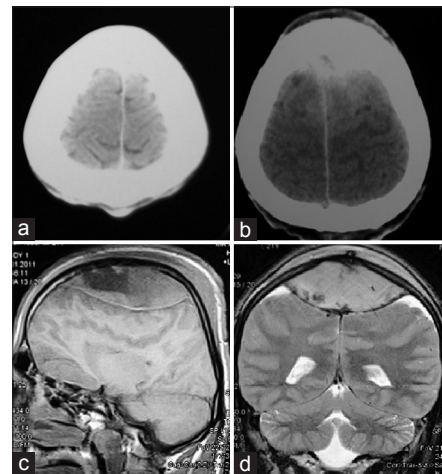


Figure 1: CT imaging at admission (a) and 24th hour post-trauma (b) were both normal. An MRI taken at the 50th hour post-trauma revealed a large vertex epidural hematoma (c, d)

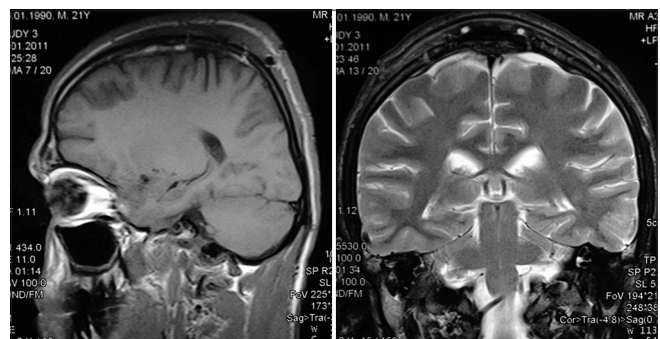


Figure 2: Postoperative MRI revealed that the epidural hematoma was completely evacuated

reported in patients suffering from VEH.^[2] Paraparesis/paraplegia is one of the most unlikely symptoms of VEH. Paraparesis, quadriparesis, or triparalysis all may cause misdiagnosis, as these symptoms are most commonly presentations of spinal cord injuries. There have been two mechanisms presumed to be responsible for bilateral motor weakness: bilateral motor cortex compression and decreased venous circulation.^[1] Bilateral parasagittal and vertical motor cortices can be directly compressed by EDH itself. On the other hand, massive VEH can cause direct compression of the venous channels near the entry points into SSS. Venous congestion with obstructed cerebrospinal fluid drainage can result in both decreased cortical function and paresis. This mechanism is also thought to cause delayed onset of the paresis.^[1,2]


Another diagnostic challenge of VEH is that conventional CT scans may miss the diagnosis, as in the presented case. Some authors reported the vertex as a potential "blind spot" on CT.^[3] It is difficult to diagnose VEH with CT because the hematoma is in near isodensity with the adjacent bone, the vertex may fall outside the scanning plane, and VEH are relatively small to be detected in CT. MRI is the current imaging method of choice in suspected cases. VEH are rare conditions where presentation with paraparesis or triparalysis is almost unique. Both neurosurgeons and emergency room physicians must be aware of this challenging condition, even if the initial CT was normal, and MRI is mandatory for life-saving diagnosis.

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