

## CORRESPONDENCE

### Subdural Haemorrhage Presenting with Isolated Unilateral 3<sup>rd</sup> Cranial Nerve Palsy

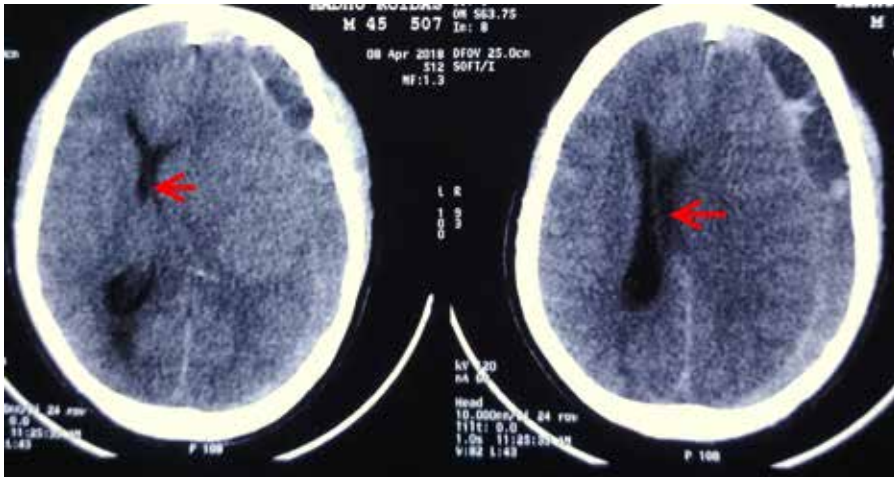
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Sir,

Subdural hematoma (SDH) is a type of intracranial haemorrhage that can have varied presentations.<sup>1</sup> It is usually more common in the elderly but younger persons may also be affected. It can be completely asymptomatic for a long time or it may present with non-specific symptoms like headache, seizure or delirium.<sup>1</sup> Focal clinical signs like cranial nerve palsy are rare manifestations of SDH. We here present



**Fig. 1: Left sided 3<sup>rd</sup> cranial nerve palsy  
in our patient**



**Fig. 2: CT scan of brain showing left sided chronic subdural hematoma with midline shift (Red arrow)**

such a rare manifestation.

A 45 year old male presented to the outdoor clinic with drooping of left eyelid for two days. He was a known alcoholic with recent history of binge drinking. He was twice found in unconscious state at the roadside after the binges. However, there was no external sign of head injury. The patient was not on any anti-coagulant or anti-platelet drugs. On examination, the patient was alert and oriented but there was some difficulty in answering questions due to slurring of speech. He did not complain of any headache. The only complaint was an inability to open the left eye. On examination, complete ptosis of the left eye was present, along with outward deviation of the eye and dilated pupil. There was failure of adduction of that eye, but abduction was normal. Thus, it was a complete 3<sup>rd</sup> nerve palsy (Figure 1). No other cranial nerve was involved. There were no pyramidal signs and no sensory symptoms. Regarding cerebellar signs, only mild slurring of speech was present.

A CT scan of brain was done which revealed (Figure 2) left sided chronic subdural hematoma covering whole of the fronto-parietal region with significant (5 mm) midline shift. No brainstem lesion was present. The patient was immediately transferred to the neurosurgery department for evacuation.

Isolated oculomotor nerve paresis is found in intra-cranial pathologies like aneurysm and meningitis<sup>2</sup>. But this nerve palsy as the presenting symptom of SDH is very rarely reported. When

the SDH occurs due to a documented event of trauma, the etiology is easy to spot. But SDH often presents in an insidious manner, as in our case and then, the diagnosis is difficult to reach unless prompt cerebral imaging is advised.

A case similar to ours was reported from the Military Hospital, Ahmedabad. Their patient also presented with sudden onset unilateral ptosis with no prior history of head injury.<sup>2</sup> In our case too, no definite history of head injury was present although the history of wayside blackouts after alcohol binges is a probable pointer to head injury. In the Ahmedabad case, CT scan of brain revealed an SDH which was almost iso-intense with the brain parenchyma and the most notable feature was the midline shift.<sup>2</sup> This isointensity of the haemorrhage with brain parenchyma is one of the pitfalls of CT scan in chronic SDH and hence, MRI scan is preferred.

The 3<sup>rd</sup> cranial nerve may be injured in any location from its origin to final termination in extraocular muscles<sup>2</sup>. The injury may be direct or indirect. Direct injury results from damage to the nucleus or nerve fascicles by trauma. Indirect injury results from displacement of the nerve in expanding haemorrhage, mass lesions etc.<sup>3</sup> Isolated 3<sup>rd</sup> nerve palsy in SDH falls in the second category.<sup>3</sup> However, a 3<sup>rd</sup> nerve palsy may be an indicator of impending herniation of the uncus, which can be more ominous. Thus, urgent intervention is usually warranted.

Usually, the 3<sup>rd</sup> nerve palsy occurs on the same side as the SDH.<sup>2,3</sup> The location of the SDH may be either

cortical, as in our case, or other atypical locations like tentorial.<sup>3</sup> Rarely other intracranial hemorrhages like epidural hematoma can also present with isolated oculomotor palsy.<sup>3</sup> Usually, the 3<sup>rd</sup> nerve palsy is reversible with surgical evacuation of the hematoma.<sup>2,4</sup>

We present this extremely rare case to highlight a rare association of intracranial hematoma. Thus, there should be a low threshold for neuroimaging in cases of isolated complete 3<sup>rd</sup> cranial nerve palsy. Unless timely treatment is instituted, the SDH may progress with eventual fatal consequences.

## References

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