



Post traumatic isolated ipsilateral oculomotor nerve palsy. An uncommon presentation

Praveen Kumar¹, Sharad Pandey², Kulwant Singh¹,
Mukesh Sharma¹, Prarthana Saxena²

¹ Department of Neurosurgery, Sir Sunder Lal Hospital, IMS, BHU, Varanasi, Uttar Pradesh, INDIA

² Department of Neurosurgery, P.G.I.M.E.R. Dr Ram Manohar Lohia Hospital, New Delhi, INDIA

ABSTRACT

The common causes of isolated third nerve palsy are microvascular infarction, intracranial aneurysm, diabetes, hypertension and atherosclerosis. Here we are presenting a case of 26-year female presenting with a history of head injury two months back. She presented with ptosis on the left side. On computed tomography, a large left-sided chronic subdural hematoma with significant midline shift was found. Isolated ipsilateral third nerve palsy is a rare presentation with unilateral chronic subdural hematoma. Improvement in ptosis after surgery indicate a good neurological outcome.

INTRODUCTION

Chronic subdural Hematoma is a collection of liquefied old blood between the duramater and arachnoid membrane of brain. It is first described by Virchow as "Pachymeningitis hemorrhagica interna" in 1857. Later Trotter put forward the theory of traumatic rupture of bridging veins as a cause of what he named "subdural hemorrhagic cyst" Chronic SDH is commonly present in elderly patients After a trivial Trauma [1,2]. Unilateral chronic SDH is more common in comparison to bilateral SDH [3]. Chronic SDH is a common presentation in people taking anticoagulant or antiplatelet drugs. Commonly Chronic SDH Patients present with Headache, Vomiting, Hemiparesis, Ataxia, Altered Consciousness, Seizures, Urinary incontinence [4]. Patients with Chronic SDH rarely present with vertigo and nystagmus upward gaze palsy, and isolated third nerve palsy [5,6,7]. Isolated third nerve palsy presented with ptosis is rare presentation in post-traumatic chronic SDH patients.

CASE REPORT

We are presenting a 26-year-old female patient, non-hypertensive,

Keywords
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(chronic SDH)



Corresponding author
Sharad Pandey

Department of Neurosurgery,
P.G.I.M.E.R. Dr Ram Manohar Lohia
Hospital, New Delhi, India

drsharad23@yahoo.com

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non diabetics, not on antiplatelet drugs. She presented with history of Head Injury two months back. No initial CT Head was done at the time of injury. Patient was conscious, cooperative and well orientated at the time of admission. Patient's vitals were within normal limit. All hematological investigations were normal. She presented with complaining of headache after one month of head injury, headache was not severe in nature and relieving on taking analgesic. There was no vomiting, hemiparesis, gait disturbance and urinary incontinence. After one and half month of head injury she complaining of dropping of left upper eyelid and patient vision was 6/9 in left eye. Left eyeball was placed outward and downward due to loss of adduction and elevation [FIGURE 1]. Left side pupil was mid dilated but fundus examination was normal. A CT Head was done showing large left side fronto-temporo-parietal chronic subdural hematoma with significant midline shift [FIGURE 2]. Patient was taken up for left sided two burr hole drainage of subdural hematoma under general anesthesia. Post operatively patient has no significant complaints and patient was put on antiepileptic medications. Her Neurological and clinical condition improved after surgery. Patient left eye ptosis and eyeball position improved same day after the surgery. Patient discharge from the hospital after 3 days in a stable condition. Improvement in ptosis after surgery indicates good neurological outcome and this was due to brainstem compression and transtentorial (Uncal) herniation which cause compression of oculomotor nerve.

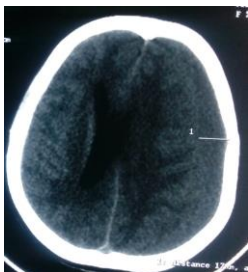


FIGURE 1. (A) severe ptosis of left eye with outward & downward displacement of eyeball (B) pre-operative CT head showing left fronto-temporo-parietal chronic subdural hematoma with significant midline shift and mass effect.

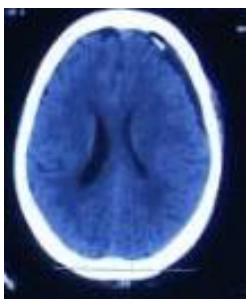


FIGURE 2. (A) Postoperative improvement in ptosis & position of eyeball (B) postoperative CT showing no residual hematoma.

DISCUSSION

Oculomotor nerve supplies all the extraocular muscle of eye except superior oblique and lateral rectus muscle. It also supplies the striated muscle of the levator palpebrae superioris and the smooth muscle concerned with accommodation namely the sphincter pupillae and ciliary muscle. In a complete lesion of the nerve the eye movement restricted in upward, downward and inward direction. Patient complaining of diplopia. There is drooping of upper eyelid due to paralysis of levator palpebrae superioris. Chronic subdural hematoma represents one of the most frequent intracranial hemorrhages encountered in the neurosurgical department, with elderly people being more frequently affected [8]. In an elderly patient brain undergo atrophied leads to 11% increase in extra cerebral space [9]. The other predisposing factors are head injury, alcohol abuse, coagulopathic disorder, antiplatelet drugs [10]. A history of head injury due to trivial trauma is presented in 60- 80% of the elderly patients [11, 12]. Most of the patient presented with complaining of headache, vomiting & hemiparesis. Isolated Third nerve palsy presented with ptosis is a rare presentation. The most common causes of isolated Third Nerve Palsy are microvascular infarction, intracranial aneurysm, Diabetes, Hypertension, Atherosclerosis. (13, 14)

CONCLUSION

Ipsilateral third nerve palsy in post-traumatic unilateral chronic subdural hematoma is a rare condition. Improvement in ptosis after surgery indicates good neurological outcome as in large chronic subdural hematoma brain shift to opposite site leads to brainstem compression and transtentorial (Uncal) herniation which cause compression of oculomotor nerve [15]

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Nil

CONFLICT OF INTEREST

There are no conflicts of interest.

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