

Calcified Extradural Hematoma with overlying Subcutaneous Swelling: A Rare Case Report

Dr.Saloni Mehra, Dr.Anuj Kumar Tripathi, Dr. Abhishek Singh³,
Dr. Sameer R Verma⁴

Abstract: Chronic ossified or calcified extradural hematomas are rare clinical entities presenting frequently in children. We report a rare case of Posttraumatic Chronic ossified extradural hematomas in a 35 years old male presenting two months after head injury with left occipito-suboccipital region swelling.

Keywords: calcification, extradural hematomas, head injury

I. Introduction

Calcified extradural hematomas are rare clinical entities presenting frequently in children. Although precise mechanism of an osseous transformation is still not well understood. Proposed hypothesis suggest that regressive and active processes are both major causes of ossification/calcification in these cases (2,3). We report a rare case of Posttraumatic Chronic ossified extradural hematomas in a 35 years old male presenting two months after head injury with left occipito-suboccipital region swelling.

II. Case report

A 35 years old male presented in neurosurgery out door with left occipito-suboccipital swelling with headache. On examination GCS score was 15/15. Vitals were normal. Sensory and motor examination was normal. On local examination firm, non compressible, non tender, non pulsating swelling over left occipito-suboccipital region was present. He developed this swelling after fall from height two months back. After fall he developed transient loss of consciousness. There was no history of seizure, vomiting, ear nose or throat bleed. Noncontrast computed tomography scan revealed calcified extradural hematoma in left occipito-suboccipital region with hydrocephalus and left occipito-suboccipital swelling. J shaped incision was given and excised the swelling which was firm and gritty in nature. Left occipito-suboccipital craniectomy was done and removed the calcified extradural collection. Post operative course was uneventful.

III. Discussion

Posttraumatic Chronic ossified extradural hematomas are rare entities. Ossified EDH is frequently present in paediatric age group (1). On review of literature, calcified chronic extradural hematoma has been reported in isolated case reports (1-3).

Although precise mechanism of an osseous transformation is still not well understood. Although precise mechanism of an osseous transformation is still not well understood, it has been hypothesized that damage to vascularized tissues such as bone and dura provokes inflammation, repair and remodeling in tissues (4). This natural sequence of healing is more rapid in children than in adults. Nakamura et al (5) and other investigators have proposed that chronic EDH starts with formation of fibroblast layer adjacent to dura within four days after bleeding. This subsequently develops into connective tissue layer from hematoma margin to cranial vault, which undergoes hyalinization and subsequent calcium deposition under the condition of poor circulation or malabsorption of hematoma content (5). These may cause intra and extra cranial calcification. This is seen in our case in which calcified EDH with extra cranial firm occipital-suboccipital swelling was present.

References

1. Iwakuma T, Brunngraber CV. Extradural ossification following an extradural hematoma. *J Neurosurg* 1974;41:104-6.
2. Erdogan B, Sen O, Bal N, Cekinmez M, Altinor N. Rapidly calcifying and ossifying epidural hematoma. *Pediatr Neurosurg* 2003;39:208-11.
3. Mathuriya SN, Kak VK, Banerjee AK. Ossified epidural hematomas: Report of two cases. *Clin Neurol Neurosurg* 1989; 91:269-72.
4. Buckwalter JA, Cruess RL. Healing of the musculoskeletal tissues; In Rockwood CA, Green DP, Bucholz RW (eds): *Fractures in adults*, ed 3, Philadelphia, Lippincott 1991; vol 1, pp 181-222
5. Nakamura N. The relationship between head injuries and chronic subdural hematoma. *Brain Nerve* 1966; 18:702-9.

Authors

Dr. Saloni Mehra - Resident general surgery, subharti medical college and university, meerut.

Dr. Anuj Kumar Tripathi - Assistant professor in neurosurgery division of general surgery, Subharti medical college and university, meerut.

Dr. Abhishek Singh - Resident general surgery, subharti medical college and university, meerut.

Dr. Sameer R Verma professor in radiodiagnosis department, subharti medical college and university, meerut.

Figure 1



Figure showing left occipito-suboccipital swelling

Figure 2



Computed tomography showing left occipito-suboccipital extra cranial swelling with extra dural hematoma

Figure 3 E



Figure showing calcified extra dural collection

Figure 4



Figure showing extra cranial firm gritty collection