ORIGINAL RESEARCH PAPER

Volume-8 | Issue-7 | July - 2019 | PRINT ISSN No. 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

ASYMPTOMATIC LARGE CHRONIC EXTRA DURAL HEMATOMA: IS IT NECESSARY TO INTERVENE?

Neurosurgery

Saswat Kumar Dandpat* Mch, Neurosurgery, PGIMER Chandigarh, India *Corresponding Author

Pratisruti Hui MD, Radiodiagnosis, BARC Hospital, Mumbai

KEYWORDS

Chronic EDH

Extradural hematoma (EDH) carries better prognosis if operated early. Emergency surgery often indicated in fear of rapid expansion of hematoma. Volume of EDH is always given priority over other factors while considering surgery [1]., we are discussing a young patient with large EDH who remained asymptomatic with conservative management.

A 15year male presented with history of fall on ground following an attack of generalized tonic clonic convulsion. Initially he was evaluated by a local physician and anti-epileptic was started. MRI was advised in a later date to look for any intracranial pathology. He was referred to our emergency as the radiology showed left sided large EDH. At presentation after three weeks of the event he was conscious, oriented without any focal neurological deficit, MRI showed left sided extra-dural bleed which was hyperintense both on T1W and T2W sequences suggestive of subacute nature of hematoma. The volume of EDH was approximately 60cc measured on non-contrast (computed tomography) images [Fig.1]. As the patient was clinically asymptomatic, we decided to manage him conservatively. At 6 months follow up he is doing well.

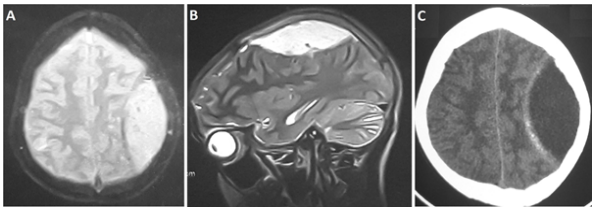

Figure 1: A- T1W MR axial image showing hyperintense mass in the extra dural space which is also hyperintense on T2W image (1B). C: Non-contrast CT showing large volume left (fronto-temporo-parietal) hypodense EDH with peripheral calcification.

Patients with seizure disorder may sustain severe head injury even with trivial trauma [2]. In our patient, there was no significant trauma following the episode of (generalised tonic clonic seizure). Only after the radiology, neurosurgery consultation was taken for the large EDH. As per brain trauma foundation guideline acute EDH with 30cc or more volume should undergo surgical evacuation regardless of GCS. Patients without any neurological deficit or symptoms, EDH volume less then 30cc, thickness less then 15mm, midline shift less then 5mm will fall in the conservative arm [1].

Patients of EDH are always at risk as the hematoma may increase in volume. Patients who are clinically asymptomatic with large EDH will fall in the gray zone where the decision to operate is always questionable. Surgery may be avoided in these asymptomatic patients if the hematoma remains static on serial radiology. It has been described that the acute EDH has a tendency to expand in the initial 6 hours following trauma [3] . Sometimes blood in the extra dural space may enlarge in the second week of trauma owing to membrane formation and neovascularization just like chronic subdural hematoma [4], theoretically patients with large extra dural hematoma who present after this danger period may be kept under observation if they are symptom free. Here the patient remains clinically silent throughout the period of initial treatment even though the volume of EDH indicated urgent evacuation.

Additionally, young patients may not deteriorate because of unfused cranial sutures, large extra-cerebral spaces and basal cisterns. The origin of an EDH is often venous, whereas in adults, it may be arterial. Overall the chance of expansion of EDH is less in pediatric population [2]. Elderly patients with atrophied brain may behave in the similar manner.

So, we believe the management of EDH should be based on clinical symptoms, age and time since injury in addition to the magnitude of hematoma.

REFERENCES

1. Soon WC, Marcus H, Wilson M. Traumatic acute extradural haematoma – Indications for surgery revisited. Br J Neurosurg. 2016;30(2):233–4.
2. Zwimpfer TJ, Brown J, Sullivan I, Moulton RJ. Head injuries due to falls caused by seizures: a group at high risk for traumatic intracranial hematomas. J Neurosurg. 1997;86(3):433–7.
3. Kang J, Hong S, Hu C, Pyen J, Whang K, Cho S, et al. Clinical Analysis of Delayed Surgical Epidural Hematoma. Korean J neurotrauma. Korean Neurotraumatology Society; 2015;11(2):112–7.
4. Watanabe T, Nakahara K, Miki Y, Shibui S, Takakura K, Nomura K. Chronic expanding epidural haematoma. Acta Neurochir (Wien). 1995 ;132(1–3):150–3.