



## Spontaneous Complete Resolution of Significant Volume Extradural Haematoma: A Case Report

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### ABSTRACT

According to brain Trauma foundation guidelines, any extradural hematoma with volume more than 30 ml should undergo surgical evacuation regardless of the Glasgow Coma Scale (GCS). Patient presented was neurologically normal with mild headache, his CT Scan Head showed left parietal extradural hematoma (volume 7.35x2.37x7.1=50cc). The patient was kept under regular clinico-radiological assessment. In ten weeks, duration, it showed complete resolution of extradural hematoma. This support it as rationalized treatment approach for such cases before surgery. Which will reduce workload on busy Neurosurgical operation theatre and surgical complications, also reduce expenditure on health care.

**Keywords:** Extradural Hematoma, Glasgow Coma Scale, Brain Trauma Foundation Guidelines, Dysphasia

### Introduction

Treatment for significant volume extradural hematoma (EDH) is urgent surgical removal. According to the “Guidelines for the Management of Traumatic Brain Injury”<sup>[1]</sup>, EDH with volume greater than 30 mL should undergo surgical evacuation, regardless of Glasgow Coma Scale (GCS)<sup>[2]</sup>.

This criterion becomes important especially when the EDH exhibits thickness of 15 mm or more, and a midline shift more than 5mm.

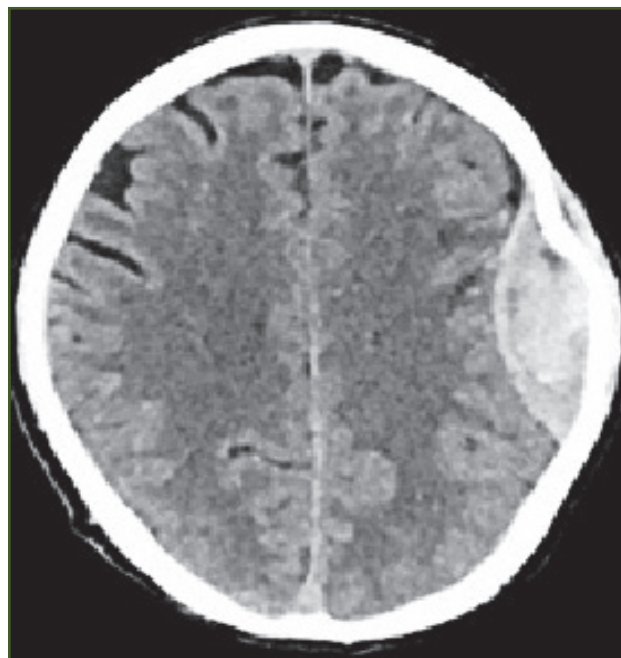
### Case Report

A 37-year-old male sustained trauma due to hit by wooden sticks ten days ago. GCS was E4M6V5 with headache and mild motor dysphasia, without vomiting or seizures. CT Scan head showed left parietal extradural hematoma (volume 7.35x2.37x7.1=50cc) and left anterior temporal (2.2x2.1x1.3) extradural hematoma (Fig. 1). Patient was not subjected to surgical evacuation but kept under regular clinico-radiological assessment. Clinically, patient's dysphasia improved slowly, and GCS remained 15/15 (E4M6V5). There was almost complete resolution of EDH in 10 weeks (Fig. 2, CT Scan Head).

### Discussion

As per brain Trauma foundation guidelines, any extradural hematoma with volume more than 30 ml should undergo surgical evacuation regardless of the GCS. But CT Scan head showed left parietal extradural hematoma (volume 7.35x2.37x7.1=50cc) the patient was kept under regular clinico-radiological observation and assessment.

With time it showed complete resolution of extra dural hematoma. This suggests that asymptomatic patients with significant volume of EDH (more than 30 ml) can be put on clinico-radiological assessment, to give a chance for complete resolution instead of subjecting it directly to surgery. This observation has also been reported by Zakaria et.al.<sup>[3,4]</sup>. Clinico-radiological assessment in such patients is an ethically rationalized treatment option.



**Fig. 1:** CT Scan head dated 7.12.2017 showed left parietal extradural haematoma (volume 7.35x2.37x7.1=50cc).



**Fig. 2: CT Scand head dated 20.2.2018 showed near complete resolution of extra dural hematoma.**

### Conclusion

Regular neuro-radiological assessment in asymptomatic extra dural hematoma (volume more than 30 ml) can be a justified treatment option. To avoid unnecessary surgical

intervention in patients who may recover completely without it, with due course of time. To reduce risk related to surgery and anesthesia. To reduce burden on neurosurgery. To reduce cost of treatment. However, more studies are needed to support the finding.

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### Competing Interests

None

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