



## AB212. 201. Emergency burr holes for extradural haematoma prior to secondary transfer to a neurosurgical centre

Alan Blake, Jack Collins, Kevin Bailey

Department of Anaesthesia, Letterkenny University Hospital, Kilmacrennan Road, Ballyboe, Glencar, Donegal, Ireland

**Background:** An extradural haematoma (EDH) can cause a rapidly progressive increase in intracranial pressure with life-threatening consequences. Several studies have shown that delayed decompression of an EDH in a patient with signs of severely raised intracranial pressure is associated with increased morbidity and mortality. When the time interval between the onset of coma and decompression of the haematoma exceeds 2 hours, mortality rises from 17% to 67%. This poses a challenge for geographically remote hospitals which may have lengthy transfer times to the nearest neurosurgical centre.

**Methods:** We present a case series of 4 patients (including a 2-year-old child) where emergency burr hole evacuation of a traumatic EDH was performed in Letterkenny University

Hospital prior to transfer. Burr hole decompression was indicated where there were signs of acutely raised ICP with impending rostrocaudal herniation (pupillary changes, coma and/or cardiovascular instability). Radiological confirmation of the position of the haematoma and neurosurgical advice was sought in all cases.

**Results:** All 4 patients had resolution of their anisocoria and/or haemodynamic instability immediately following the procedures. They were transferred uneventfully to Beaumont Hospital in Dublin where they had definitive neurosurgical treatment. All patients had excellent functional recoveries.

**Conclusions:** The risks of performing an unfamiliar neurosurgical procedure must be balanced against the risks of harm which can result from transferring a patient with an expanding EDH which has not been decompressed. The rationale for an early resuscitative burr hole prior to transfer is clear where there is anisocoria or persistent coma secondary to an EDH and the transfer time is lengthy, as is the case in Letterkenny University Hospital.

**Keywords:** Burr hole; decompression; extradural; haematoma; transfer

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