Introduction: Epidural hematoma, usually caused by tearing of middle meningeal artery, is associated with hematoma expansion and rapid deterioration within first 24 hours. Nevertheless, hematoma size enlargement later than 3 days after injury rarely occurs. This case will outline a delayed progressive epidural hematoma patient who eventually deteriorated at fourth day after injury because of hematoma expansion.

Methodology/Description: An 18-year-old male patient with a history of motorcycle accident was referred to our hospital. Initial computed tomography (CT) scan showed right temporal bone linear fracture, small epidural hematoma at right temporal lobe, and subarachnoid hemorrhage. On admission, the Glasgow Coma Scale (GCS) was 10, pupils were equal and reactive bilaterally, and no signs of lateralization. Initial laboratory results show elevated level of D-Dimer (13.1 mg/L), leukocyte (27,800/μL), and blood glucose (222.6 mg/dL). Mannitol was administered, and patient was treated conservatively in neurology ward, then GCS level increases to 12. At day4, right pupil became dilated and had sluggish reaction to light. Subsequent CT scan shows enlargement of epidural hematoma size, and craniotomy was done. Concurrently, there were slight elevated fibrinogen levels (578.7 mg/dL), but decreased level of D-Dimer (0.4 mg/L) and leucocyte (12.510/μL), as compared with initial. At day8, patient improved and discharged from hospital with good recovery.

Conclusion: Epidural hematoma typically tends to progress acutely soon after injury. However, rare cases indicate a delayed progressive hematoma expansion. Therefore, identification of delayed hematoma expansion in the presence of risk factors (linear fracture, coagulopathy, decreased ICP) and close monitoring in epidural hematoma patients is essential, even after 3 days post injury.

Keywords: delayed epidural hematoma, linear fracture, coagulopathy

References

1. Chen H, Guo Y, Chen SW, et al. Progressive epidural hematoma in patients with head trauma: incidence, outcome, and risk factors. Emerg Med Int 2012;2012:134905
2. Ahmad T, Imran S, Sarfraz K. Risk factors of progressive epidural hematoma in patients with head trauma. Rawal Med J 2015;40:303–306

A050 Pediatric Hemispherotomy: Unique Perioperative Challenges

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Introduction: About 30 to40% of pediatric patients with epilepsy remain refractory to medical management and require surgery. Disconnective procedures, such as hemispherotomy, can be challenging for the neurosurgeon as well as the anesthesiologist considering the longer duration of surgery, possibility of sudden massive blood loss, and some unique postoperative complications.

Methodology/Description: A 7-year-old female patient had a history of continuous left partial seizures since 1 year of age. She remained refractory to antiepileptics and was diagnosed as epilepsia partialis continua. She was posted for a functional right hemispherotomy. Her developmental age was of 3 years and 4 months with an IQ of 52 (moderate mental retardation). On the day of surgery, her antiepileptics were continued. Intravenous induction was done with propofol, followed by vecuronium as relaxant. Patient was intubated using flexometallic tube. Invasive BP monitoring was done and two large-bore IV lines were secured. Anesthesia was maintained with isoflurane and fentanyl. Injection mannitol and dexamethasone were given to decrease ICP. Temperature was maintained with air warming blankets. Blood loss around 250 mL was replaced with packed RBCs. Patient was extubated on table. Intravenous levetiracetam was given before extubation. Postoperatively patient remained seizure-free, alert, and oriented for 24 hours after which she became sleepy but arousable for next 5 days. She had fever on postoperative day 5 which subsided the next day with steroids and was discharged on the seventh day.

Conclusion: Pediatric patients present challenges to neurosurgeons as well as anesthesiologists. The intraoperative concerns include possibility of sudden massive blood loss, longer duration of surgery, and interaction of muscle relaxants with antiepileptic drugs, hypothermia, and delayed recovery. Increased sleepiness after 48 hours due to contralateral edema of the cerebrum or obstructive hydrocephalus increases postoperative ICU stay. A noninfectious fever mostly on day 4 or 5 is caused by chemical ventriculitis, and usually responds to steroids. Thus, a team approach including neurosurgeon, neurophysician, anesthesiologist and intensivist helps in making pediatric hemispherotomy a successful and safe surgery for intractable epilepsy

Keywords: pediatric epilepsy, hemispherotomy, neuroanesthesia

References

1. Koh JL, Egan B, McGraw T. Pediatric epilepsy surgery: anesthetic considerations. Anesthesiol Clin 2012;30(2):191–206
2. Sheshadri V, Raghavendra S, Chandramouli BA. Perioperative anaesthetic concerns during paediatric epilepsy surgeries: a retrospective chart review. J Neuroanaesth Crit Care 2016;3:110–114

A051 Comparison of Efficacy of Oral Escitalopram and Alprazolam as Premedication in Craniotomy Surgeries for Primary Brain Tumors

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Introduction: Reduction in anxiety and fear at preoperative period in patients of elective surgery is essential for surgical preparation. To allay the anxiety is among one of the most important components in neuroanesthesia practice.