Posterior fossa epidural hematoma in children case series

A retrospective analysis was conducted for 48 paediatric cases diagnosed with Posterior fossa epidural hematoma (PFEDH) and admitted to Yuying Children's Hospital of Wenzhou Medical University from January 2010 to August 2015. The clinical features and outcomes were analyzed and compared with previous literature.

Seventeen patients were surgically treated in this series and 31 patients received non-operative treatment. The outcomes were good in 46 patients, evaluated using the Glasgow outcome score (GOS), while mild disability was observed in one patient, and only one case showed severe disability. There were no cases of mortality in this series.

Posterior fossa epidural haematoma is relatively rare compared with supratentorial epidural haematoma. Early and serial CT scans should be performed for all suspicious cases. The criteria for the surgical treatment of paediatric patients with PFEDH were concluded. The overall prognosis was excellent in paediatric patients ¹.

2015

Of 22 patients, 16 were managed surgically (group 1) and 6 conservatively (group 2); 1 failed conservative treatment (due to an increased EDH volume). Mean age was 11.7 years (range 2-18 years). Falls were the most common cause of injury. Vomiting and loss of consciousness were the most frequent presenting features. There were 18 mild, 2 moderate and 2 severe head injuries. The mean volume of EDH was 37.1 ml (range 18-100 ml) and 10.3 ml (8-16 ml) in the operative and conservative subgroups, respectively. Occipital bone fracture was seen in 16 cases with supratentorial extension in 11. Four complications were noted in 3 cases. Mean follow-up duration was 25.1 months (range 3-34 months). Except for 1 patient, all had excellent outcomes. There was no mortality.

Traumatic pediatric PFEDHs are rare. Both the clinical status of the patient and the volume of the hematoma need to be assessed before deciding on surgery. Most cases have associated occipital bone fractures and around half have supratentorial extension; these need to be carefully assessed preoperatively. Torrential venous bleeding can be a major problem due to rupture of the adjacent sinuses. Timely intervention is crucial for achieving good outcome, keeping in view a low threshold for surgical evacuation. Although not innovative, this second-largest case series provides additional data and contributes to the existing literature on such lesions in pediatric patients²⁾.

2012

Twenty-nine patients underwent surgery and 11 patients received conservative therapy and close follow-up. All patients fared well, and there was no surgical mortality or morbidity.

Based on the data in this large series, the authors conclude that PFEDH in children can be treated in experienced centers with excellent outcome, and there is no need to avoid surgery when it is indicated 3 .

1993

Nine cases.The clinical picture was dominated by headache, vomiting, and gait ataxia. An occipital fracture was seen in 77.7% of the patients. In all cases, the diagnosis was made by computed tomography. The postoperative evolution was good ⁴⁾.

1984

Four cases of childhood posttraumatic posterior fossa epidural hematoma diagnosed by computed tomography (CT) are reported. All four patients presented with relatively minor symptoms after sustaining head trauma and returned to normal after evacuation of the hematoma. The pertinent literature concerning posterior fossa epidural hematoma in children is reviewed. The role of CT in the early detection of lesions when the associated clinical symptoms are mild is emphasized ⁵⁾.

References

1)

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