Early Decompressive Craniectomy In Subdural Hematoma And Good Outcome – Case Report

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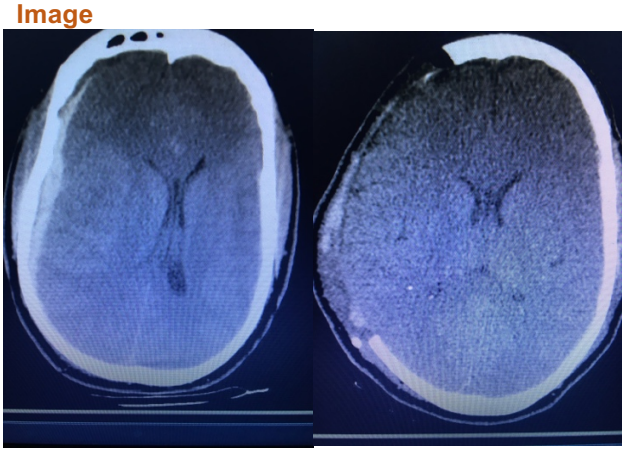
Abstract

Case Report : A 20-year-old man presented to our Hospital with severe brain trauma, hit by a car while he was riding a bike. On the arrival at the emergency room (ER) his Glasgow Coma Scale (GCS) was 4 (eyes 1; verbal 1 and motor 2) with fixed midriatic pupils and submitted to mechanical ventilation. A CT scan was performed and revealed a subdural hematoma, midline shift greater than 5mm and a swelling, Marshall V (surgically evacuated). The patient was submitted to a decompressive craniectomy and hematoma evacuation two hours after the accident and sent to ICU with ICP monitoring. About 48 hours after surgery a new CT scan was performed and revealed a good outcome and then we suspended the sedation and 7 days after the trauma the patient woke up without neurological deficits. Currently the patient is doing his last year in the Faculty of Biomedicine.

Discussion: Some authors did not see benefits in early surgery although the average time was 5 hours after the accident and in many cases the worse patients that underwent to early surgery had a poor outcome. We did not find a specific paper describing the outcome in patients with a very poor GCS (less than 5) and fixed pupils, although the pupils abnormalities remains a critical feature for surgical indication.

Conclusion: We believe that even in patient with severe brain trauma, poor GCS and non-reactive pupils, early surgery especially if it is performed before 4 hours can probable improves the outcome, considering other clinical features such as blood pressure, oxygen saturation.

Image



CT SCAN ON ADMISSION. CT SCAN 48 HOURS AFTER SURGERY.

Recent Publications

1. Seelig JM, Becker DP, Miller JD, et al. Traumatic acute subdural hematoma: major mortality reduction in comatose patients treated within four hours. N Engl J Med 1981;304:1511–8.
2. . Miller JD, Sweet RC, Narayan R, et al. Early insults to the injured brain. JAMA 1978;240:439–42.
3. Fakhry SM, Scanlon JM, Robinson L, et al. Prehospital rapid sequence intubation for head trauma: conditions for a successful program. J Trauma 2006;60:997–1001.
4. Tian HL, Chen SW, Xu T, et al. Risk factors related to hospital mortality in patients with isolated traumatic acute subdural haematoma: analysis of 308 patients undergone surgery. Chin Med J (Engl) 2008;121:1080–4.
5. Leitgeb J, Mauritz W, Brazinova A, et al. Outcome after severe brain trauma due to acute subdural hematoma. J Neurosurg 2012;117:324–33.
6. Hamed M, Schuss P, Daher FH, et al. Acute traumatic subdural hematoma: surgical manage- ment in the presence of cerebral herniationea single-center series and multivariate analysis. World Neurosurg. 2016;94:501-506.
7. Dent DL, Croce MA, Menke PG, et al. Prognostic factors after acute subdural hematoma. J Trauma. 1995;39:36-42 [discussion: 42-43].

Photograph



Biography

Dr Richam has completed his graduation in Medical School at the Federal University of Mato Grosso do Sul and the residence of Neurosurgery at Hospital de Base, São José do Rio Preto. Fellowship in Skull Base Tumors and Neurovascular at University of São Paulo.At present living in Foz do Iguaçu in the position of Neurology and Neurosurgey Coordination at Hospital Municipal Padre Germano Lauck.

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Notes/Comments: