Management of Adult Post-Traumatic Hydrocephalus

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Introduction

Post-traumatic hydrocephalus (PTH) is considered as one of the complications that can affect the prognosis after traumatic brain injury with controversy about the best way of management. The goal of this work is to study the management and prognosis of adult patients with PTH.

Methods

This study was performed in Alexandria university hospital and included all adult patients who were admitted at the emergency department and developed PTH from January 2012 to December 2014. The diagnosis of PTH was based on both clinical and radiological criteria. The Glasgow Coma Scale (GCS) was used for initial assessment as well as for monitoring the prognosis.

Results

In the present study, Twenty five patients presented with hydrocephalus following head injury. There were 18 (72%) males and 7 (28%) women, their age ranged from 18 to 73 years (mean age; 41 years). The onset of hydrocephalus was immediate after trauma in 10 (40%) cases, whereas a delayed onset was observed in 15 (60%) cases. Of the 25 patients with PTH in this study, 8 patients were treated with an external ventricular drain, 12 patients underwent ventriculoperitoneal shunt and 5 patients were treated with endoscopic third ventriculostomy (ETV). Long-term improvement was observed in 13% of patients treated with external ventricular drain, 50% of patients treated with shunts and 40% of patients treated with ETV.

Conclusions

PTH can lead to significant morbidity and mortality. Still ventriculoperitoneal shunts remain the most appropriate way of management however endoscopic third ventriculostomy can be beneficial in some conditions. The final outcome is related mainly to the initial GCS score regardless the way of management

Learning Objectives

to understand the different ways of management of post traumatic hydrocephalus

References