



Risk Factors for Shunt-Dependent Chronic Hydrocephalus after Anterior Circulation Aneurysmal Subarachnoid Haemorrhage.

Xiaolin Chen; Yuanli Zhao

Introduction

Anterior circulation aneurysms account for more than half of the cerebral aneurysm location types. Chronic hydrocephalus is a common complication that can occur after aneurysmal subarachnoid haemorrhage (SAH). The purpose of this study was to investigate clinical risk factors that could predict the occurrence of shunt-dependent chronic hydrocephalus after SAH for the Anterior circulation aneurysms.

Methods

108 consecutive patients who underwent either surgery or transarterial endovascular embolization as a treatment for Anterior circulation aneurysm within 72 h -after experiencing SAH from January 2012 to January 2013 were studied retrospectively to assess the risk factors that might predict shunt-dependent chronic hydrocephalus. Clinical and demographic factors were examined, including age, sex, initial external ventricular drainage (EVD), GCS scales, modified Rankin scale ,Fisher grade, Hunt and Hess grade, intraventricular haemorrhage (IVH) and treatment methods to define predictors of shunt-dependent hydrocephalus. These parameters were compared between the shunt-dependent and non-shunt-dependent groups.

Results

A univariate analysis revealed that several admission variables were associated with shunt-dependent hydrocephalus: (1) increased age; (2) a poor admission GCS scales; (3) modified Rankin scale; (4) a poor admission Hunt and Hess grade; (5) the presence of IVH , and (6) initial EVD .

Conclusions

Chronic hydrocephalus after aneurysmal SAH has a multifactorial aetiology. Understanding the risk factors that predict the occurrence of chronic hydrocephalus is necessary to improve treatment decision.

Learning Objectives

improve the treatment for medical care for aneurysm patients

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