

Effect Of Fenestration Of Lamina Terminalis (Lt) On Occurrence Of Shunt-Dependent Chronic Hydrocephalus (SDCH): A One- Centre Systemic Review

Nur Nazleen Said Mogutham¹, Pulivendhan Sellamuthu¹, Kugendran Pondiah²

¹*Neurosurgery / Queen Elizabeth Hospital , Kota Kinabalu Sabah/ Malaysia*

²*School Of Medicine/ Monash University/ Malaysia*

Purpose

To investigate:

1. Effect of fenestration of LT on rate of SDCH and Glasgow Outcome Score (GOS)
2. Effect of Grade of SAH (Fischer Grading System) upon initial presentation on incidence of SDCH.

Materials and Methods

116 patients presented our centre for aSAH from July 2014 to April 2017. All underwent surgical clipping of aneurysm but thereafter divided into Group A (fenestration of LT not done) and B (fenestration of LT done). This was performed by making a small incision at the bluish bulging membrane behind the optic chiasm. Factors considered were Fischer Grading of SAH, evidence of hydrocephalus post-clipping of aneurysm, CSF diversion method used and GOS.

Results

A majority of female patients from the age group of 50-59 had aSAH, commonly due to ruptured ACOM aneurysm. 68.7% of the patients had Fischer Grade 1 SAH and only 3 cases had post-operative hydrocephalus, with all of them scoring GOS 5. Comparatively, patients that displayed Fischer grade 3 or 4, experienced hydrocephalus more frequently (66.4%) and had poorer outcome. Data showed that Group A patients had higher incidence of chronic hydrocephalus (58.8%) compared to group B (23.6%). The most common method of CSF diversion used was ventriculo-peritoneal (VP)(76.5%).

Conclusion

This study concludes that fenestration of LT may have positive impact on our patients, in reducing incidence of chronic hydrocephalus post operatively to a certain degree . Furthermore, should a patient present with a low Fischer grade of SAH, there is less tendency of hydrocephalus and better GOS.