

Ratio Of Nitric Oxide Metabolite Levels In CSF And Serum And Their Correlation With Severity And Outcome In Patients With Subarachnoid Hemorrhage

Kho Giat Seng¹, Regunath Kandasamy², Jafri Malin Abdullah²

¹*Neurosains Department, Usm/ Universiti Sains Malaysia/ Malaysia*

²*Department Of Neurosains, And Center For Neurosains Service And Research/ Universiti Sains Malaysia/ Malaysia,*

Purpose

Estimate the relationship between CSF/Serum NOx ratio with severity grading, outcome and vasospasm status. Based on the commonly accepted measures of severity grading including World Federation of Neurologic Surgeons (WFNS) score, Glasgow Coma Scale (GCS), Glasgow Outcome Scale (GOS) upon discharge and 6 months follow-up, vasospasm status based on the trans cranial Doppler, clinical and radiological finding.

Method

Total of 40 patients, with the diagnosis of subarachnoid haemorrhage. CSF samples, Serum samples and all relevant data was collected from the patient at the time of admission and serially throughout the 5 days duration of treatment from March 2013 to June 2015.

Result

The comparison of NOx level Ratio in CSF/ Serum based on availability of vasospasm and severity outcome (GOS) for Day-1 and Day-4. There were statistical significant results for patients with better outcome and present of vasospasm with the p- value of 0.031 and 0.043.

Conclusion

Based on the current available grading systems, none was able to provide the definite treatment regime especially toward the poor grade SAH patients.

As our study had showed the significant result of ratio NOx level in CSF and serum, which correlated with the good outcome in SAH patients, we believed that the ratio of NOx could be the secondary prognosticator in providing aggressive treatment for patients with poor grade SAH.