Vol 24, No 2 (2015)

June

DOI: http://dx.doi.org/10.13181/mji.v24i2
# Table of Contents

**Editorial**

*Plants and herbs for therapy of diabetes*  
*Laurentius A. Pramono*  
PDF 67-9

**Basic Medical Research**

*Insects on pig carcasses as a model for predictor of death interval in forensic medicine*  
*Sunny Wangko, Erwin G. Kristanto, Sonny J.R. Kalangi, Johannes Huijbrugs, Dantje T. Sembel*  
PDF 70-8

*Evaluation of outer dense fiber-1 and -2 protein expression in asthenozoospermic infertile men*  
*Sylvia W. Lestari, Dwi A. Pujianto, Purnomo Goeharso, Evelyn Loanda*  
PDF 79-83

*Effects of anaerobic exercise and detraining on the caspase-3 expression of rat ventricular cardiomyocyte*  
*Minastra Siagian, Maria Louisana, Dewi I.S. Santosu, Sutjahjo Erdardjo*  
PDF 84-90

**Clinical Research**

*A survey on the management of overactive bladder by Indonesian urologists*  
*Rande M.W. Tirtayasa, Harrina E. Rahardjo*  
PDF 91-6

*Additional benefit of higher dose green tea in lowering postprandial blood glucose*  
*Rita Lahiri, Inge Permadhi, Ninit Mudijatini, Rahmainat*  
PDF 97-102

*Associations between BMI, serum uric acid, serum glucose, and blood pressure with urinary tract stone opacity*  
*Ikhlas A. Bramono, Nur Rasyid, Ponco Birowo*  
PDF 103-8

*Serum vascular endothelial growth factor as a predictor of clinical outcomes in anterior circulation ischemic stroke*  
*Vivien Fuspitasari, Syarifuddin Wahid, Amiruddin Alih, Budhianto Suhadi, Cahyono Kaenan, Suryani As'ad, Tiahmaya Pratelinggi, Jan S. Purba, Eka J. Wahjoopramono*  
PDF 109-14
Serum vascular endothelial growth factor as a predictor of clinical outcomes in anterior circulation ischemic stroke

Vivien Puspitasari, Syafriuddin Wahid, Amiruddin Allah, Budhianto Suhadi, Cahyono Kaelan, Suryani As’ad, Ilhamjaya Patellongi, Jan S. Purba, Eka J. Wahjoepramono

DOI: http://dx.doi.org/10.13181/mji.v24i2.1196

Abstract

Background: Inflammatory response in the acute phase of ischemic stroke will trigger the process of neuroplasticity and determine the clinical outcomes. Angiogenesis and neurogenesis are induced by expression of vascular endothelial growth factor (VEGF) in the acute phase of stroke. The purpose of this study was to determine the association between VEGF serum level in acute phase of stroke with the clinical outcomes.

Methods: This longitudinal cohort study was conducted on 64 patients suffering from first-attack of anterior circulation blockage as evidenced by cephalic diffusion-weighted magnetic resonance imaging (DWI). VEGF serum level was measured at 72 hours and 7 days after stroke and the clinical outcomes were assessed on day 30 post-stroke using the National Institutes of Health Stroke Scale (NIHSS).

Results: VEGF level at hour-72 and on day-7 were 5.84 ± 0.736 ng/mL and 5.797 ± 0.96 ng/mL, respectively (p > 0.05). High VEGF levels at hour-72 can be used to predict poor clinical outcome 30 days after stroke (OR = 6.5; 95% CI = 1.15-36.61; p = 0.034). Subjects who have increasing levels of VEGF on day-7 compared to hour-72 tend to have better clinical outcomes on day-30. (NIHSS score = 1.33 ± 1.22 vs 3 ± 3.78; p = 0.232).

Conclusion: VEGF levels in the acute phase of ischemic stroke reflect the degree of brain damage, the dynamic of the increase in VEGF levels after a stroke was associated with better clinical outcomes.

Keywords

angiogenesis; clinical outcomes; ischemic stroke; VEGF