HUBUNGAN KADAR PROKALSITONIN SERUM DENGAN SEVERITAS STROKE ISKEMIK AKUT

TESIS

OLEH :

HARRY PRIMA SYA PUTRA

BP. 1150309203

PROGRAM PENDIDIKAN DOKTER SPESIALIS I
BAGIAN ILMU PENYAKIT SARAF
FAKULTAS KEDOKTERAN UNIVERSITAS ANDALAS
PADANG
2017

HUBUNGAN KADAR PROKALSITONIN SERUM DENGAN SEVERITAS STROKE ISKEMIK AKUT

OLEH :

HARRY PRIMA SYA PUTRA

BP. 1150309203

Tesis

Sebagai Salah Satu Syarat Untuk Memperoleh Gelar Spesialis Saraf (SpS)

Pada Program Pendidikan Dokter Spesialis Ilmu Penyakit Saraf

Fakultas Kedokteran Universitas Andalas

BAGIAN ILMU PENYAKIT SARAF

FAKULTAS KEDOKTERAN UNIVERSITAS ANDALAS

RS. Dr. M. Djamil PADANG

2017

HUBUNGAN KADAR PROKALSITONIN SERUM DENGAN SEVERITAS STROKE ISKEMIK AKUT

Harry Prima Sya Putra, Basjiruddin A, Rismawati Yaswir, Hardisman

ABSTRAK

Latar belakang: Stroke tetap merupakan masalah kesehatan yang utama dengan angka kematian, kesakitan yang tinggi dan besarnya beban yang ditimbulkan baik terhadap keluarga maupun sistem pelayanan kesehatan secara umum. Dibutuhkan suatu marker yang bisa menilai severitas stroke. Salah satu biomarker tersebut adalah prokalsitonin, yang dipercayai memiliki peranan dalam patofisiologi stroke iskemik akut. Penelitian ini bertujuan untuk mengetahui hubungan antara kadar prokalsitonin serum dengan severitas stroke sikemik akut.

Metode: Penelitian ini menggunakan metode Cross sctional study terhadap 61 orang pasien stroke iskemik yang di rawat di Bagian Ilmu Penyakit Saraf RS. DR. M. Djamil padang antara bulan April 2016 sampai bulan Februari 2017. Setiap subyek penelitian menjalani 1 kali pengambilan sampel darah untuk pengukuran kadar prokalsitonin serum dan dua kali penilaian skor NIHSS yaitu pada fase akut (onset < 24 jam) dan lewat fase akut (onset hari ke 7). Perbedaan severitas fase akut dan lewat fase akut diuji dengan Wilcoxon Signed Ranks Test, sedangkan hubungan antar variabel dinilai menggunakan uji Mann Whitney U. Nilai $p<0.05$ dianggap signifikan secara statistik.

Hasil: Rerata usia 56,6 ± 10,5 tahun. Laki-laki 34 orang (55,7%). Median skor NIHSS fase akut 6 (1-13) dan median skor NIHSS lewat fase akut 3 (0-10). Severitas fase akut 27,9% severitas ringan, 72,1% severitas sedang. Severitas lewat fase akut 62,3% severitas ringan, 37,7% severitas sedang. Median kadar prokalsitonin serum 57,23 (26,72 - 995,8) pg/ml. Terdapat hubungan antara severitas fase akut dan lewat fase akut. Terdapat hubungan antara kadar prokalsitonin serum dengan severitas fase akut ($p=0.039$), tidak terdapat hubungan antara kadar prokalsitonin serum dengan severitas lewat fase akut.

Kesimpulan: Terdapat hubungan antara kadar prokalsitonin serum dengan severitas stroke iskemik fase akut tapi tidak terdapat hubungan antara kadar prokalsitonin dengan severtitas stroke iskemik lewat fase akut.

Kata kunci : prokalsitonin, stroke iskemik, severitas, biomarker

ASSOCIATION BETWEEN SERUM PROCALCITONIN LEVELS WITH ACUTE ISCHEMIC STROKE SEVERITY

Harry Prima Sya Putra, Basjiruddin A, Rismawati Yaswir, Hardisman

ABSTRACT

Background: Stroke remains a major health problem with high mortality, morbidity and a major burden on both the family and the health care system in general. Needed a biomarker that can assess the severity of stroke. One of the biomarker is procalcitonin, which is believed to have a role in the pathophysiology acute ischemic stroke. This study aims to investigate the association between serum procalcitonin levels with acute ischemic stroke severity.

Methods: This study uses Cross sectional design with a total enrolled of 61 patients with acute ischemic stroke treated in Department of Neurology DR. M. Djamil Hospital Padang between the months April 2016 until February 2017. All study subjects underwent 1 time blood sampling for serum procalcitonin levels measurement and twice NIHSS score assessment, first in the acute phase (onset <24 hours) and second after acute phase (onset day 7th). Differences of severity of the acute phase and after the acute phase was tested by Wilcoxon Signed Ranks Test, while the relationship between variables was assessed using the Mann Whitney U test. P value of <0.05 was considered statistically significant.

Results: The mean age was 56.6 ± 10.5 years. Male were 34 (55.7%). Median NIHSS score of acute phase 6 (1-13) and median NIHSS score aftre the acute phase 3 (0-10). Stroke severity of the acute phase of mild severity of 27.9%, 72.1% moderate severity. Stroke severity after the acute phase of mild severity of 62.3%, 37.7% moderate severity. Median serum procalcitonin levels was 57.23 (26.72 to 995.8) pg/ml. There was an association between the severity of the acute phase and after the acute phase. There was an association between serum procalcitonin levels with severity of acute phase (p = 0.039), there was no association between serum procalcitonin levels with severity after the acute phase.

Conclusion: Serum procalcitonin level was associated with severity of the acute phase of ischemic stroke but there was no association between serum procalcitonin level with severity after the acute phase of ischemic stroke.

Keywords : Procalcitonin, ischemic stroke, severity, biomarker