

## Protein S100b sebagai prediktor tingkat keparahan cedera kepala = Protein S 100B as predictor severity traumatic brain injury / Hendra Samanta

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### Abstrak

[<b>ABSTRAK</b><br>

Latar Belakang. Cedera kepala merupakan salah satu masalah kesehatan masyarakat yang serius yang dapat menyebabkan kematian, kecacatan fisik dan kecacatan mental. Cedera kepala dapat menyebabkan sel astrosit rusak sehingga mengeluarkan protein S 100B yang dapat dideteksi didalam darah perifer, sehingga dapat dipakai untuk memprediksi tingkat keparahan cedera kepala yang terjadi. Penelitian ini bertujuan untuk mencari hubungan antara kadar protein S 100B dengan tingkat keparahan cedera kepala.

Metode. Desain penelitian adalah potong lintang untuk mengetahui kadar protein S 100B pada pasien cedera kepala akut onset kurang dari 24 jam. Subyek penelitian sejumlah 85 pasien yang datang berobat ke Instalasi Gawat Darurat RSCM sejak bulan maret ? juni 2015. Dilakukan penilaian GCS, lamanya tidak sadarkan diri, lamanya amnesia pasca trauma dengan bantuan alat TOAG, pemeriksaan CT Scan dan pemeriksaan serum protein S 100B.

Hasil. Didapatkan kadar rerata protein S 100B serum 0,77 &#956;g/L, rerata durasi amnesia 21,22 jam, rerata nilai GCS 13. Terdapat perbedaan kadar protein S 100B pada CKR (rerata 0,4175) dibandingkan dengan pada CKS dan CKB (1,0722) (p=0,020), nilai titik potong kadar protein S 100B pasien yang meninggal 0,765 &#956;g/L (p= 0,002).

Simpulan. Kadar rerata protein S 100B pada cedera kepala ringan lebih rendah dibandingkan dengan kadar protein S 100B pada cedera kepala sedang dan berat, semakin tinggi kadar protein S 100B akan semakin tidak baik keluaran pasien cedera kepala.

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<b>ABSTRACT</b><br>

Background. Traumatic brain injury is still a serious community health problem can cause death, physical and mental disability. Protein S 100B release from destructive astrocyte from brain injury and detected in the peripheral blood, so that protein S 100B can serve as predictor of severity traumatic brain injury. This research aimed to find association between protein S 100B with traumatic brain injury severity.

Method. This was a cross sectional study focusing to protein S 100B value from acute traumatic brain injury patients with onset < 24 hours. Eighty five patients were recruited from emergency room RSCM. GCS value, duration of post traumatic amnesia with TOAG tools, duration loss of consciousness, brain CT scan and concentration serum protein S 100B were record.

Results. The mean concentration serum Protein S 100B were 0.77, mean PTA duration were 21,22 hours, and the mean GCS were 13. There is a significant differentiation value of concentration protein S 100B from mild trumatic brain injury compare moderate and severe traumatic brain injury (p=0,020), cut off point for death patients was 0,765 &#956;g/L

Conclusion. The mean serum Protein S 100 B from mild trumatic brain injury lower than moderate and severe traumatic brain injury higher consentration of protein S 100B have bad outcome, Background.

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