

HUBUNGAN ANTARA KEBERADAAN ASITES DENGAN SKOR MELD-NA PADA PENDERITA SIROSIS HATI

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INTISARI

Latar belakang : Sirosis hati merupakan penyebab kematian terbesar ketiga pada penderita berusia 45-46 tahun. Maka sistem penilaian yang mudah, obyektif, akurat dan terjangkau penting untuk menentukan prognosis sirosis hati. Skoring *Child-Turcotte-Pugh* (CTP) dan *Model for End Stage Liver Disease* (MELD-Na) telah umum digunakan untuk menentukan prognosis serta survival dari penderita sirosis hati. Namun Skor MELD-Na merupakan penilaian berdasarkan nilai laboratorium saja tanpa memasukkan penilaian klinis seperti pada CTP yang mempertimbangkan asites. Oleh sebab itu diperlukan penelitian mengenai hubungan antara tanda klinis berupa asites terhadap sistem skoring MELD-Na tersebut.

Tujuan : Tujuan penelitian ini adalah mengetahui hubungan antara keberadaan asites dengan nilai skor MELD-Na pasien sirosis hati.

Metode : Pasien yang memenuhi kriteria dilakukan pengambilan data dasar, anamnesis, pemeriksaan fisik, dan data laboratorium. Nilai MELD-Na diukur dari hasil laboratorium darah pasien. Perbedaan nilai rerata skor MELD-Na pada kelompok asites dan non-asites diuji dengan menggunakan Uji T independen. Nilai *cut-off* MELD-Na ditentukan melalui kurva *Receiver Operating Characteristic* (ROC). Hubungan antara keberadaan asites dengan nilai MELD-Na ditentukan oleh uji *Fisher exact*, kekuatan korelasinya ditentukan dengan uji *Phi* serta *Crammer's V*. Hasil penelitian dianggap signifikan secara statistik apabila diperoleh nilai probabilitas $p < 0,05$.

Hasil : Berdasarkan kriteria inklusi dan eksklusi didapatkan 59 subyek (41 laki-laki dan 18 perempuan). Usia rata-rata subyek 52,05 dengan 39 pasien ditemukan asites dan 20 pasien tidak memiliki asites, berdasarkan hasil uji T independen terdapat perbedaan signifikan nilai rerata MELD-Na ($p=0,006$). Berdasarkan kurva ROC ditemukan titik potong 20,7 (95% spesifitas, 35% sensitivitas) dengan *Area Under the Curve* 0,662 ($p=0,042$). Berdasarkan titik potong tersebut dilakukan uji *Fisher* dengan tabel 2x2, uji *Phi* dan *Cramer's V* dengan nilai p 0,022 ; 0,015 ; 0,015 secara berturut-turut. Nilai risiko relatifnya adalah 1,607 (95% IK: 1,203-2,145).

Kesimpulan : Terdapat korelasi bermakna antara rasio keberadaan asites dengan skor Model End-stage Liver Disease-Na dibuktikan dengan nilai *Fisher Exact test*, uji *Phi* serta *Cramer's V* yang bermakna secara signifikan.

Kata kunci : *Model for End Stage Liver Disease*, MELD-Na, sirosis hati, asites

CORRELATION BETWEEN THE PRESENCE OF ASCITES WITH MELD-NA SCORING IN CIRRHOSIS PATIENTS

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ABSTRACT

Background : Liver Cirrhosis is the third largest cause of death in patients aged 45-46 years. An easy, objective, accurate and affordable scoring system is essential to determine the prognosis of liver cirrhosis. *Child-Turcotte-Pugh* (CTP) Scoring and *Model for End Stage Liver Disease* (MELD-Na) have been commonly used to determine the prognosis and survival of liver cirrhosis patient. The MELD-Na score, however, is an assessment based on the laboratory values alone without including a clinical assessment such as the CTP that considers ascites. Therefore, research on the relationship between the clinical signs which is ascites to the MELD-Na scoring system is required.

Objective : The purpose of this study was to investigate the association between the presence of ascites and MELD-Na scores of liver cirrhosis patients.

Method : Patients who met the criteria were subjected to basic data collection, anamnesis, physical examination, and laboratory data. The MELD-Na value was measured from the patient's blood lab results. Differences in the mean scores of MELD-Na scores on ascites and non-ascites were tested using independent T-tests. The cut-off value of MELD-Na is determined through the Reciever Operating Characteristic (ROC) curve. The relationship between the presence of ascites and the MELD-Na value is determined by the Fisher exact test, the correlation strength is determined by Phi and Crammer's V test. The results are considered statistically significant when the probability value $p < 0.05$ is obtained.

Results : Based on inclusion and exclusion criteria, there were 59 subjects (41 male and 18 female). The mean age of subjects 52.05 with 39 patients found ascites and 20 patients did not have ascites, based on independent T test results there was a significant difference in mean values of MELD-Na ($p = 0.006$). Based on the ROC curve found a cutoff point of 20.7 (95% specificity, 35% sensitivity) with Area Under the Curve 0.662 ($p = 0.042$). Based on the cut-off, Fisher test with 2x2 table, Phi and Cramer's V test were done with p value 0,022; 0.015; 0.015 respectively. The relative risk value is 1.607 (95% IK: 1.203-2.145).

Conclusion : There is a statistically significant correlation between the presence of ascites with Model for End-stage Liver Disease-Na scores proved by Fisher Exact test, Phi and Crammer's V values.

Keywords: *Model for End Stage Liver Disease*, MELD-Na, liver cirrhosis, ascites