

INTISARI

Latar belakang: Sirosis hati (SH) menjadi masalah kesehatan di seluruh dunia. Perhimpunan Peneliti Hati Indonesia (PPHI) melaporkan rerata prevalensi sirosis hati adalah 3,5% dari seluruh pasien penyakit hati yang dirawat. Skor *Model for End-Stage Liver Disease* (MELD) digunakan untuk menilai progresifitas penyakit hati kronis seperti sirosis hati. Pengembangan penanda interleukin-13 (IL-13) sangat diperlukan untuk menghilangkan kesulitan dalam mengikuti perjalanan penyakit yang progresif dari sirosis hati, yang belum banyak diteliti. Tujuan penelitian ini adalah menilai korelasi antara kadar interleukin-13 dengan skor MELD pada pasien sirosis hati.

Metode: Penelitian ini menggunakan rancangan observasional potong lintang. Subjek penelitian adalah pasien sirosis hati berumur 18 tahun dan menandatangani persetujuan penelitian. Sampel darah dengan antikoagulan natrium sitras untuk pemeriksaan INR dan sampel darah tanpa antikoagulan untuk pemeriksaan bilirubin, kreatinin dan interleukin-13. Pemeriksaan kadar interleukin-13 serum menggunakan metode kuantitatif *sandwich Enzyme Linked Immuno Sorbent Assay* (ELISA). Diagnosis sirosis hati berdasarkan kriteria klinis, laboratorium, dan *ultrasonography* (USG). Analisis karakteristik subjek menggunakan median (minimum-maksimum) karena distribusi data tidak normal, sedangkan untuk melihat korelasi kadar interleukin-13 dengan skor MELD pada pasien sirosis hati digunakan uji korelasi *Spearman*.

Hasil penelitian: Penelitian ini dilakukan pada 52 pasien sirosis hati, rerata umur 57 ± 12 tahun. Dominasi laki-laki sebesar 34 pasien (65,4%), dengan penyebab terbanyak adalah virus hepatitis B sebesar 22 pasien (40%). Nilai median skor MELD adalah 14 (6 - 40) dan median kadar IL-13 adalah 48,19 (10-199) pg/mL. Penanda IL-13 signifikan korelasi positif dengan skor MELD, didapatkan nilai $r = 0,526$ ($p=0,000$).

Simpulan: Terdapat korelasi positif dan bermakna antara kadar IL-13 dengan skor MELD pada pasien sirosis hati.

Kata kunci: Interleukin-13, skor *Model for End-Stage Liver Disease* (MELD), Sirosis Hati.

ABSTRACT

Background: Liver cirrhosis (LC) is a serious health problem in the world. Indonesian Association for the Study of the Liver reported that prevalence average of cirrhosis of the liver was 3.5% of all treated liver disease patients. Model for End Stage Liver Disease (MELD) score is used for assessing chronic liver disease progressiveness such as cirrhosis of the liver. The development of markers Interleukin-13 (IL-13) is very important to eliminate the difficulty in following the journey of a progressive disease of cirrhosis of the liver, which is not been much researched yet. The aim of this study is to assess the correlation between IL-13 level with MELD score on liver cirrhosis patients.

Methods: It was an observational cross section study. The subject of this study was the liver cirrhosis patients aged 18 years and had signed research agreement. A blood sample with anticoagulant sodium citrate for INR and a blood sample without anticoagulant for bilirubin, creatinine and IL-13. The examination of IL-13 levels used quantitative method sandwich Enzyme Linked Immuno Sorbent Assay (ELISA). Liver cirrhosis diagnosis based on clinical, laboratory, and ultrasonography (USG) criteria. The subject characteristic analysis of this study used median (minimum-maximum) because the data distribution was not normal, whereas to see the correlation of IL-13 level using MELD score in liver cirrhosis patients used Spearman correlation test.

Result: This study was conducted to 52 liver cirrhosis patients with average age 57 ± 12 years. Male dominance was 34 patients (65,4%), with the most common causes was hepatitis B virus by 22 patients (40%). The median MELD score was 14 (6 - 40) and median IL-13 level was 48,19 (10-199) pg/mL. Interleukin-13 marker significant positive correlations with the MELD score, obtained value of $r = 0,526$ ($p = 0,000$).

Conclusion: There is a significant positive correlations between interleukin-13 level and MELD score in liver cirrhosis patients.

Keywords: Interleukin-13, *Model for End-Stage Liver Disease* (MELD) score, Liver Cirrhosis