INTISARI

PERBEDAAN RASIO *ALPHA FETOPROTEIN-L3*/*ALPHA FETOPROTEIN* (AFP-L3%) PADA KARSINOMA HEPATOSELULER BERDASARKAN SISTIM *STAGING BARCELONA CLINIC LIVER CANCER* (BCLC)

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Latar belakang. Stadium awal KHS seringkali bersifat asimptomatik sehingga dibutuhkan tes diagnostik yang handal untuk mendiagnosis KHS sedini mungkin. *Barcelona Clinic Liver Cancer* (BCLC) merupakan sistim *stagimg* yang direkomendasikan karena dinilai cukup lengkap dan sangat direkomendasikan oleh AASLD dan EASL. *Lens culinaris agglutinin-reactive AFP* (AFP-L3) merupakan subfraksi AFP yang sangat spesifik yang dapat digunakan sebagai penanda diagnosis dini KHS.
Tujuan Penelitian. Tujuan utama penelitian ini adalah (1) untuk mengetahui perbedaan rasio *Alpha Fetoprotein-L3/Alpha Fetoprotein* (AFP-L3%) pada karsinoma hepatoseluler berdasarkan sistim *staging* BCLC, (2) memprediksi keparahan KHS berdasarkan sistim *staging* BCLC dengan menggunakan rasio AFP-L3%
Metode. Rancangan penelitian ini adalah *cross sectional*. Sebanyak 62 sampel pasien yang telah tegak diagnosis KHS dilakukan penilaian stadium BCLC, kemudian dilakukan pengambilan serum darah untuk pemeriksaan AFP total dan AFP-L3 untuk selanjutnya menghitung nilai AFP-L3%. AFP-L3 diperiksa menggunakan alat ELISA *reader*.
Hasil Penelitian. Berdasarkan uji *Kruskal Wallis*, didapatkan nilai median AFP-L3% pada kelompok stadium A dan B adalah 0,08 (0,012-2,01), kelompok stadium C 0,83 (0,006-359,2), dan kelompok stadium D 1,6 (0,004-358,7) dengan nilai p=0,812. Pada uji *chi square* dengan nilai *cut-off* AFP-L3% sebesar 0,6%, walaupun tidak didapatkan hasil yang bermakna, akan tetapi didapatkan PR=1,636 yang menunjukkan bahwa stadium D kemungkinan berisiko 1,6 kali lebih tinggi untuk memiliki nilai AFP-L3% $\geq$ 0,6% dibandingkan kelompok A dan B, dan PR=1,533 menunjukkan bahwa stadium C memiliki kemungkinan risiko 1,5 kali lebih tinggi untuk memiliki kadar AFP-L3% $\geq$ 0,6% pada stadium C dibandingkan stadium A dan B.
Kesimpulan. Tidak didapatkan perbedaan yang bermakna secara statistik rasio *Alpha fetoprotein-L3/Alpha fetoprotein* (AFP-L3%) pada karsinoma hepatoseluler berdasarkan sistim *staging Barcelona Clinic Liver Cancer* (BCLC). Rasio AFP-L3% dengan cut-off 0,6% kemungkinan mampu memprediksi keparahan karsinoma hepatoseluler berdasarkan sistim *staging* BCLC walaupun tidak bermakna secara statistik.

Kata kunci: *Alpha fetoprotein,* AFP-L3%, karsinoma hepatoseluler, sistim *staging Barcelona Clinic Liver cancer, prevalence ratio*

ABSTRACT

DIFFERENCE OF ALPHA FETOPROTEIN-L3 / ALPHA FETOPROTEIN RATIO (AFP-L3%) ON HEPATOCELLULAR CARCINOMA BASED ON BARCELONA CLINIC LIVER CANCER (BCLC) STAGING SYSTEM

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Background. The initial stages of hepatocellular carcinoma (HCC) are often asymptomatic, requiring reliable diagnostic tests to diagnose HCC as early as possible. Barcelona Clinic Liver Cancer (BCLC) is a recommended stagimg system because it is considered quite complete and highly recommended by AASLD and EASL. Percentage of AFP-L3 to total AFP (AFP-L3%) can be used as a marker of early diagnosis of HCC.
Objective. The main objectives of this study were (1) to determine the difference of Alpha-Fetoprotein-L3/Alpha Fetoprotein (AFP-L3%) ratio in hepatocellular carcinoma based on BCLC staging system, (2) to predict the severity of HCC based on BCLC staging system using AFP-L3%
Method. The design of this study is cross sectional. A total of 62 samples of patients who had diagnosis of HCC were assessed for BCLC stage, then blood serum was taken for total AFP and AFP-L3 examination to further calculate AFP-L3% values. AFP-L3 is checked using the ELISA reader tool.
Results. Based on Kruskal Wallis test, the median values of AFP-L3% in groups of stage A and B were 0.08 (0.012-2.01), stage C were 0.83 (0.006-359.2), and stage D 1,6 (0,004-358,7) with p-value = 0,812. In the chi square test with the cut-off value of AFP-L3% of 0.6%, although no significant results were obtained, PR=1.636 indicated that stage D may be at risk 1.6 times to have AFP-L3% ≥ 0.6% compared with groups A and B, and PR=1.533 indicated that stage C had a 1.5% higher risk of having AFP-L3% ≥ 0.6% in stage C compared with stage A and B.
Conclusion. There was no statistically significant difference in the ratio of Alpha fetoprotein-L3 / Alpha fetoprotein (AFP-L3%) in hepatocellular carcinoma based on Barcelona Clinic Liver Cancer (BCLC) staging system. The AFP-L3% ratio with cut-off 0,6% might be able to predict the severity of hepatocellular carcinoma based on the BCLC staging system although not statistically significant.

Keywords: Alpha fetoprotein, AFP-L3%, hepatocellular carcinoma, Barcelona Clinic Liver Cancer staging system, prevalence ratio