

## KORELASI GAMBARAN RADIOLOGI *COMPUTED TOMOGRAPHY* KARSINOMA

### HEPATOSELULER BERDASARKAN *BARCELONA CLINIC LIVER CANCER*

#### DENGAN SKOR ALBI (ALBUMIN - BILIRUBIN)

Jimmy Indarto G<sup>1</sup>, Bagaswoto P<sup>2</sup>, Wigati Dhamiyati<sup>2</sup>

<sup>1</sup>Residen dan <sup>2</sup>Staf Departemen Radiologi, Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan Universitas Gadjah Mada, Yogyakarta

#### INTISARI

**Latar Belakang :** Hepatoseluler karsinoma menempati peringkat kelima penyebab kematian akibat tumor ganas di asia. Persentase kemampuan bertahan hidup dalam 5 tahun hepatoseluler karsinoma sebesar 18% menjadikannya tumor paling mematikan nomor dua. Skor ALBI menjadi salah satu faktor penentu dari prognosis hepatoseluler karsinoma.

**Tujuan :** Tujuan penelitian ini adalah untuk membuktikan adanya korelasi antara skor ALBI dengan gambaran radiologi CT hepatoseluler karsinoma berdasarkan BCLC pada pasien hepatoseluler karsinoma.

**Bahan dan Metode :** Penelitian ini merupakan penelitian analitik observasional dengan rancangan cross sectional secara retrospektif dengan menggunakan data sekunder. Subyek penelitian adalah penderita hepatoseluler karsinoma yang telah menjalani pemeriksaan CT-Scan Abdomen 4 fase di Instalasi radiologi RSUP Dr Sardjito dalam kurun waktu Januari 2021 - Desember 2022, terkonfirmasi dari hasil patologi anatomi, serta memiliki pemeriksaan darah albumin dan bilirubin. Subyek penelitian diambil dengan menggunakan metode consecutive non-random sampling.

**Hasil :** Dari 32 sampel penelitian, sebagian besar terdiri dari laki-laki (62,50%), rentang usia subyek penelitian paling banyak adalah usia  $\geq 60$  (53%), nilai serum albumin terbanyak pada nilai  $< 3.5$  g/dL (62.5%), nilai total bilirubin terbanyak pada  $< 2$  mg/dL (62.5%), dan derajat BCLC terbanyak pada BCLC B (87.5%). Dari uji korelasi Spearman derajat BCLC dengan skor ALBI didapatkan koefisien korelasi yang lemah,  $r = 0,287$  dan nilai  $p = 0,11$  ( $p > 0.05$ ) yang menandakan bahwa korelasi antara gambaran CT hepatoseluler karsinoma dengan skor ALBI tidak bermakna secara statistic.

**Kesimpulan :** Tidak terdapat korelasi yang bermakna secara statistik antara gambaran hepatoseuler karsinoma berdasarkan skor BCLC dengan skor ALBI ( $p = 0.11$ ).

**Kata Kunci :** Hepatoseluler karsinoma, BCLC, Skor ALBI

# COMPUTED TOMOGRAPHY OF HEPATOCELLULAR CARCINOMA RADIOLOGICAL IMAGES BASED ON BARCELONA CLINIC LIVER CANCER WITH ALBI SCORE (ALBUMIN - BILIRUBIN)

Jimmy Indarto G<sup>1</sup>, Bagaswoto P<sup>2</sup>, Wigati Dhamiyati<sup>2</sup>

<sup>1</sup>Resident and <sup>2</sup>Staff of the Department of Radiology, Faculty of Medicine, Public Health and Nursing, Gadjah Mada University, Yogyakarta

## ABSTRACT

**Background :** Hepatocellular carcinoma ranks as the fifth leading cause of death from malignant tumors in Asia. The 5-year survival rate for hepatocellular carcinoma is 18%, making it the second most deadly tumor. The ALBI score is one of the determining factors in the prognosis of hepatocellular carcinoma.

**Objective :** The aim of this study was to prove the correlation between the ALBI score and the CT radiological appearance of hepatocellular carcinoma based on BCLC in hepatocellular carcinoma patients.

**Materials and Methods:** This research is an observational analytical study with a retrospective cross sectional design using secondary data. The research subjects were hepatocellular carcinoma sufferers who had undergone a 4-phase abdominal CT-Scan examination at the radiology installation of Dr Sardjito Hospital in the period January 2021 - December 2022, confirmed by anatomical pathology results, and had albumin and bilirubin blood tests. Research subjects were taken using the consecutive non-random sampling method.

**Results :** Of the 32 research samples, most of them consisted of men (62.50%), the age range of research subjects was mostly age  $\geq 60$  (53%), the highest serum albumin value was  $< 3.5$  g/dL (62.5%), The highest total bilirubin value was  $< 2$  mg/dL (62.5%), and the highest BCLC grade was BCLC B (87.5%). From the Spearman correlation test of BCLC degrees with the ALBI score, a weak correlation coefficient was obtained,  $r = 0.287$  and  $p = 0.11$  ( $p > 0.05$ ) indicating that the correlation between the CT image of hepatocellular carcinoma and the ALBI score was not statistically significant.

**Conclusion :** There was no statistically significant correlation between the appearance of hepatocellular carcinoma based on the BCLC score and the ALBI score ( $p = 0.11$ ).

**Keywords :** Hepatocellular carcinoma, BCLC, ALBI score