

ABSTRACT

SIX-MONTH SURVIVAL IN HEPATOCELLULAR CARCINOMA PATIENTS WITH AND WITHOUT NON-STRUCTURAL RENAL DYSFUNCTION

Background: Hepatocellular Carcinoma (HCC) is the second leading cause of cancer-related mortality worldwide. Non-structural renal dysfunction (NSRD), which includes Acute Kidney Injury (AKI) and Hepatorenal Syndrome (HRS), is a common complication in advanced liver disease and is suspected to further worsen the survival of HCC patients. Data on the survival of HCC patients with NSRD at Dr. Sardjito Central General Hospital is still unavailable.

Objectives: This study aimed to compare the 6-month survival of HCC patients with and without NSRD and to analyze the factors influencing it.

Methods: This retrospective cohort study utilized data from the HCC registry and electronic medical records at Dr. Sardjito Central General Hospital from January 2023 to July 2025. A total of 63 subjects were selected via purposive sampling, consisting of 21 HCC patients with NSRD and 42 HCC patients without NSRD. Survival analysis was performed using the Kaplan-Meier method and Cox regression to identify influencing factors.

Results: The 6-month survival of HCC patients with NSRD was significantly lower than those without NSRD (mean survival 3.77 months vs. 4.64 months; HR=1.79; 95% CI: 1.00-3.21; p=0.049). Multivariate analysis identified that Transarterial Chemoembolization (TACE) procedure was a protective factor, reducing the risk of death by 70% (HR=0.30; p=0.002). In the TACE group, 82.1% of patients were in BCLC stage A-B, which was significantly different from the non-TACE group (p=0.003). Age above 60 years significantly affected survival (HR=0.49; p=0.047). A subsequent advanced multivariate analysis for this older age group showed that both Child-Pugh C (HR=11.7; p=0.048) and TACE (HR=0.19; p=0.016) were significant factors influencing survival.

Conclusion: Non-structural renal dysfunction significantly reduces the 6-month survival of patients with hepatocellular carcinoma. Transarterial Chemoembolization (TACE) and Child-Pugh classification are significant factors affecting survival. BCLC stage A-B appears to support the favorable impact of TACE on patient survival.

Keywords: Hepatocellular Carcinoma, Survival, Non-Structural Renal Dysfunction, Acute Kidney Injury, Hepatorenal Syndrome

INTISARI

KESINTASAN HIDUP 6 BULAN PADA PASIEN KARSINOMA SEL HATI DENGAN DAN TANPA DISFUNGSI GINJAL NON-STRUKTURAL

Latar Belakang: Karsinoma Sel Hati (KSH) merupakan penyebab kematian terkait kanker kedua terbanyak di dunia. Disfungsi ginjal non-struktural (DGNS), yang meliputi Cedera Ginjal Akut (CGA) dan Sindroma Hepatorenal (SHR), merupakan komplikasi umum pada penyakit hati lanjut dan diduga semakin memperburuk kesintasan hidup pasien KSH. Data mengenai kesintasan hidup pasien KSH dengan DGNS di RSUP Dr. Sardjito masih belum ada.

Tujuan: Penelitian ini bertujuan untuk membandingkan kesintasan hidup 6 bulan pada pasien KSH dengan dan tanpa DGNS serta menganalisis faktor-faktor yang mempengaruhinya.

Metode: Penelitian cohort retrospektif ini menggunakan data registry KSH dan rekam medis elektronik di RSUP Dr. Sardjito periode Januari 2023 hingga Juli 2025. Sebanyak 63 subjek terpilih melalui purposive sampling, terdiri dari 21 pasien KSH dengan DGNS dan 42 pasien KSH tanpa DGNS. Analisis kesintasan dilakukan dengan metode Kaplan-Meier dan regresi Cox untuk mengidentifikasi faktor yang berpengaruh.

Hasil: Kesintasan hidup 6 bulan pasien KSH dengan DGNS secara signifikan lebih rendah dibandingkan tanpa DGNS (rerata kesintasan 3,77 bulan vs 4,64 bulan (HR=1,79; 95% CI: 1,00-3,21; p=0,049). Analisis multivariat mengidentifikasi bahwa tindakan *Transarterial Chemoembolization* (TACE) merupakan faktor protektif yang menurunkan risiko kematian sebesar 70% (HR=0,30; p=0,002). Pada kelompok TACE 82,1% BCLC A-B dan berbeda signifikan dengan kelompok tanpa TACE (p=0,003). Usia di atas 60 tahun signifikan mempengaruhi kesintasan (HR=0,49; p=0,047) yang dalam analisis multivariat lanjutan menunjukkan Child Pugh C (HR=11,7; p=0,048) dan TACE (HR=0,19; p=0,016) keduanya signifikan mempengaruhi kesintasan pasien usia lanjut.

Kesimpulan: Disfungsi ginjal non-struktural secara signifikan menurunkan kesintasan hidup 6 bulan pada pasien karsinoma sel hati. Tindakan *Transarterial Chemoembolization* (TACE) dan Child Pugh signifikan mempengaruhi kesintasan hidup. Stadium BCLC A-B mendukung TACE dalam mempengaruhi kesintasan.

Kata Kunci: Karsinoma Sel Hati, Kesintasan, Disfungsi Ginjal Non-Struktural, Cedera Ginjal Akut, Sindroma Hepatorenal