

KORELASI *PSOAS MUSCLE INDEX* DAN *TRANSVERSAL PSOAS MUSCLE THICKNESS* DENGAN RESPON TERAPI *TRANSARTERIAL CHEMOEMBOLITATION* PADA PASIEN KARSINOMA HEPATOSELULER

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INTISARI

Latar belakang: Karsinoma hepatoseluler (KHS) adalah keganasan hepar primer tersering dengan prognosis yang buruk. *Transarterial chemoembolization* (TACE) adalah terapi pilihan pada KHS stadium *intermediate* kriteria *Barcelona Clinic Liver Cancer* (BCLC). Penelitian-penelitian sebelumnya mengkonfirmasi bahwa kondisi sarkopenia mempengaruhi prognosis pasien KHS yang mendapat terapi TACE.

Tujuan penelitian: Mengetahui hubungan antara *psaos muscle index* (PMI) dan *transversal psaos muscle thickness* (TPMT) dengan respons TACE pada pasien KHS

Bahan dan Cara : Penelitian ini adalah penelitian observasional analitik korelasi *cross-sectional* dengan subyek dari data sekunder yang dipilih secara *consecutive nonrandom sampling*. Subyek penelitian adalah hasil CT scan abdomen 4 fase pasien KHS sebelum dan setelah menjalani TACE pertama kali di RSUP Dr. Sardjito Yogyakarta periode Juni 2016 – Juni 2021. Respons terapi TACE dikelompokkan dua kategori yakni respons dan tidak respons. PMI dan TPMT juga dikelompokkan dua kategori yakni sarkopenia dan tidak sarkopenia. Dilakukan uji korelasi koefisien kontingensi antara PMI dan TPMT dengan respons terapi TACE kemudian dilanjutkan dengan uji regresi logistik.

Hasil: Diperoleh 32 subyek, berjenis kelamin laki-laki 75% dengan rerata usia $56,8 \pm 10,53$ tahun. Besar ukuran tumor rerata $106,28 \pm 34,86$ mm sebelum TACE dan $78,59 \pm 43,97$ mm setelah TACE. Respons terapi TACE kategori respons 46,9 % dan tidak respons 53,1%. PMI sebelum TACE 56,3% tidak sarkopenia dan sarkopenia 43,7%. TPMT sebelum TACE tidak sarkopenia 46,9 % dan sarkopenia 53,1%. Hasil uji koefisiensi kontingensi antara PMI dengan respons TACE $r = 0,398$; $p = 0,014$ dan antara TPMT dengan respons TACE $r = 0,602$; $p = 0,000$. Hasil uji regresi logistik menunjukkan variabel yang berpengaruh terhadap respons terapi TACE adalah TPMT (OR 32,289) dan ukuran tumor (OR 7,261).

Kesimpulan: Terdapat korelasi positif sangat lemah dan signifikan secara statistik antara PMI dengan respons TACE serta korelasi positif kuat dan signifikan secara statistik antara TPMT dengan respons TACE.

Kata kunci : karsinoma hepatoseluler, *TACE*, *sarkopenia*, *PMI*, *TPMT*

CORRELATION OF PSOAS MUSCLE INDEX AND TRANSVERSAL PSOAS MUSCLE THICKNESS WITH TRANSARTERIAL CHEMOEMBOLITATION RESPONSE IN HEPATOCELLULAR CARCINOMA PATIENTS

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ABSTRACT

Background: Hepatocellular carcinoma (HCC) is the most common primary liver malignancy. Transarterial chemoembolization (TACE) is the choice treatment, especially in the intermediate stages of the Barcelona Clinic Liver Cancer (BCLC) criteria. Previous studies confirmed that sarcopenia had an effect on the prognosis of HCC patients receiving TACE.

Objective: To determine the relationship between psoas muscle index (PMI) and transverse psoas muscle thickness (TPMT) with TACE response in HCC patients.

Materials and Methods: This research is an analytic observational study with cross-sectional correlation test with subjects from secondary data in a consecutive non-random sampling. The subjects of the research were the results of 4 phases abdominal CT scans in HCC patients before and after undergoing TACE for the first time at RSUP. Dr. Sardjito Yogyakarta from June 2016 to June 2021. TACE responses are grouped into two categories, response and no-respons. PMI and TPMT are also grouped into two categories, sarcopenia and non-sarcopenia. A contingency coefficient correlation test was performed between PMI and TPMT with TACE response, followed by logistic regression test.

Results: There were 32 subjects, 75% male with mean age of 56.8 ± 10.53 years. The mean tumor size was 106.28 ± 34.86 mm before TACE and 78.59 ± 43.97 mm after TACE. TACE therapy result 46.9% respons and 53.1% no-respons. The PMI before TACE was 56.3% non-sarcopenia and 43.7% sarcopenia. TPMT before TACE was 46.9% non-sarcopenia and 53.1% sarcopenia. The results of the contingency coefficient test between PMI and TACE response showed $r = 0.398$; $p = 0.014$ and between TPMT and TACE response $r = 0.602$; $p = 0.000$. The results of the logistic regression test showed that TPMT (OR 32,289) and tumor size (OR 7,261) influenced TACE response.

Conclusion: There is a very weak and statistically significant positive correlation between PMI and TACE response but there is a strong and significant positive correlation between TPMT and TACE response

Keywords: hepatocellular carcinoma, TACE, sarcopenia, PMI, TPMT