

## HUBUNGAN ANTARA KARAKTERISTIK MORFOLOGI PENCITRAAN TUMOR KARSINOMA HEPATOSELLULER PADA CT SCAN ABDOMEN KONTRAS 4 FASE DENGAN RESPON TERAPI TRANSARTERIAL CHEMOEMBOLIZATION

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### INTISARI

**Latar Belakang:** Karsinoma hepatoseluler (KHS) merupakan masalah kesehatan yang penting di dunia, karena insidensi, morbiditas dan mortalitas yang tinggi. *Transarterial chemoembolization* (TACE) merupakan salah satu terapi lokoregional kemoembolisasi tumor KHS. CT *scan* abdomen kontras 4 fase merupakan modalitas tersering dalam diagnosis dan evaluasi tumor KHS yang dilakukan TACE. Karakteristik morfologi pencitraan KHS menggambarkan derajat histopatologis KHS, dan respon TACE berhubungan erat dengan derajat histopatologis KHS.

**Tujuan Penelitian:** Mengetahui hubungan antara karakteristik morfologi pencitraan CT *scan* abdomen kontras 4 fase KHS dengan respon TACE.

**Metode Penelitian:** Subyek penelitian terdiri dari 50 pasien KHS yang dilakukan TACE konvensional dengan lipiodol dan doksorubisin, yang memiliki citra CT *scan* abdomen 4 fase sebelum dan sesudah TACE. Karakteristik morfologi pencitraan KHS dinilai dalam 7 variabel. Evaluasi respon TACE diukur sesuai kriteria lesi target mRECIST. Analisis statistik menggunakan *Chi Square* dengan nilai  $p < 0,05$ .

**Hasil:** Karakteristik morfologi pencitraan berupa ukuran tumor ( $p < 0,001$ ), *margin* tumor ( $p = 0,015$ ), *prominent intratumoral vessels* ( $p = 0,009$ ) dan nodul satelit ( $p = 0,002$ ) berhubungan signifikan dengan respon TACE. Sedangkan variabel jumlah tumor, nekrosis prominen intratumoral dan *corona enhancement* tidak berhubungan signifikan dengan respon TACE.

**Kesimpulan:** Terdapat hubungan yang bermakna antara karakteristik morfologi pencitraan KHS berupa ukuran tumor, *margin* tumor, *prominent intratumoral vessels* dan nodul satelit dengan respon TACE.

**Kata Kunci:** Karsinoma Hepatoseluler, *Transarterial chemoembolization*, CT *scan* abdomen kontras 4 fase.

## CORRELATION BETWEEN IMAGING MORPHOLOGY CHARACTERISTICS OF FOURPHASIC ABDOMINAL CONTRAST CT SCAN OF HEPATOCELULAR CARCINOMA WITH THERAPEUTIC RESPONSE OF TRANSARTERIAL CHEMOEMBOLIZATION

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### ABSTRACT

**Background:** Hepatocellular carcinoma (HCC) are important health problems because of their high incidence, morbidity and mortality rate. Transarterial chemoembolization (TACE) is a locoregional therapy of KHS. Fourphasic abdominal CT scan is major modality for diagnosis and evaluate of HCC tumor after TACE. Imaging morphology characteristic of HCC associate with histopathologic grading and TACE therapeutic response have a high association with histopathologic grading HCC.

**Objective:** Knowing the association between imaging morphology characteristics of HCC related to TACE therapeutic response.

**Material and Methods:** The study subjects consisted of 50 patients HCC with conventional TACE locoregional therapy with lipiodol and doxorubicin, that have fourphasic abdominal CT scan before and after TACE. HCC imaging morphology characteristics consist of 7 variables. TACE therapeutic response evaluate according to target lesion diameter of mRECIST method. Significance tests are using Chi Square with significance value  $p < 0,05$ .

**Results:** HCC imaging morphology characteristics that have significance association with TACE response are diameter ( $p < 0,001$ ), *margin* ( $p = 0,015$ ), prominent intratumoral vessels ( $p = 0,009$ ) and satellite nodules ( $p = 0,002$ ). While characteristic of single / multiple tumor, intratumoral necrosis and corona enhancement aren't have significance association with TACE response.

**Conclusion:** There are significance association between imaging morphology characteristics of HCC with TACE therapeutic response in variables of tumor diameter, tumor *margin*, prominent intratumoral vessels and satellite nodules.

**Keyword:** Hepatocellular Carcinoma, trasarterial chemoembolization, fourphasic abdominal contrast CT scan.