

KORELASI KARAKTERISTIK TEPI LESI MENINGIOMA INTRAKRANIAL PADA CT SCAN KEPALA DENGAN DERAJAT HISTOPATOLOGIS MENURUT WHO 2016

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INTISARI

Latar Belakang: CT *Scan* adalah salah satu modalitas yang digunakan untuk mendiagnosis meningioma paling umum digunakan. Meningioma derajat tinggi sering dikaitkan dengan temuan radiologis seperti adanya invasi ke parenkim otak, invasi tulang, dan edema peritumoral. Tepi lesi meningioma merupakan salah satu prediktor dari meningioma atipikal atau meningioma derajat tinggi. Di Indonesia, analisis korelasi karakteristik tepi lesi meningioma menggunakan modalitas CT *Scan* dengan derajat diferensiasi histopatologis belum pernah dilakukan.

Tujuan: Mengetahui adanya korelasi dan kekuatan korelasi antara karakteristik tepi lesi meningioma intrakranial yang dinilai menggunakan CT *Scan* dengan derajat histopatologis menurut WHO 2016 di RSUP Dr. Sardjito Yogyakarta.

Metode: Penelitian ini dilakukan di Instalasi Radiologi RSUP Dr. Sardjito Yogyakarta, dengan mengambil data sekunder dari rekam medis elektronik *SIMETRIS* bulan Mei 2020-Mei 2023. Penelitian ini menggunakan desain *cross-sectional* dengan sampel sebanyak 30 pasien. Data CT *Scan* diambil dalam format DICOM, dan dilakukan uji analisis korelasi menggunakan uji korelasi *Spearman*.

Hasil: Sebanyak 27 pasien yang terdiagnosis meningioma berjenis kelamin perempuan (86,7%), dengan prevalensi usia terbanyak ≥ 50 tahun sebanyak 16 pasien (53%), IMT terbanyak dalam kategori Normal sebanyak 13 pasien (43,3%). Derajat histopatologis yang terbanyak ditemukan derajat I sebanyak 21 pasien (70%), derajat II sebanyak 9 pasien (30%), dan tidak ditemukan pasien dengan meningioma derajat III (0%). Hasil korelasi *Spearman* menunjukkan korelasi signifikan antara tepi lesi meningioma intrakranial dengan derajat histopatologis menurut WHO 2016 ($p=0,036$, $r=0,517$).

Kesimpulan: Terdapat korelasi positif yang signifikan antara tepi lesi meningioma intrakranial dengan derajat histopatologis menurut WHO 2016.

Kata Kunci: Meningioma intrakranial, derajat histopatologis WHO 2016, CT *Scan*.

CORRELATION OF MARGIN CHARACTERISTICS OF INTRACRANIAL MENINGIOMA LESIONS ON HEAD CT SCAN WITH HISTOPATHOLOGIC GRADE ACCORDING TO WHO 2016

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ABSTRACT

Background: CT scan is one of the most commonly used modalities for diagnosing meningiomas. High-grade meningioma is often associated with radiologic findings such as invasion of the brain parenchyma, bone invasion, and peritumoral edema. The margin of meningioma lesions is one of the predictors of atypical meningioma or high-grade meningioma. In Indonesia, correlation analysis of meningioma margin characteristics using CT scan modality with the degree of histopathological differentiation has never been conducted.

Objective: To determine the correlation and strength of correlation between the margin characteristics of intracranial meningioma lesions assessed using CT scan and the histopathological grade according to WHO 2016 at Dr. Sardjito General Hospital Yogyakarta.

Methods: This study was conducted at the Radiology Department of Dr. Sardjito Hospital Yogyakarta, by taking secondary data from SIMETRIS electronic medical records from May 2020-May 2023. This study used a cross-sectional design with a sample of 30 patients. CT scan data was taken in DICOM format, and a correlation analysis test was performed using the Spearman correlation test.

Results: A total of 27 patients diagnosed with meningioma were female (86.7%), with the highest prevalence of age ≥ 50 years as many as 16 patients (53%), most BMI in the Normal category as many as 13 patients (43.3%). The most histopathological degrees were found to be degree I as many as 21 patients (70%), degree II as many as 9 patients (30%), and there were no patients with degree III meningioma (0%). Spearman's correlation results showed a significant correlation between the margin of the intracranial meningioma lesion and the histopathological grade according to WHO 2016 ($p = 0.036$, $r = 0.517$).

Conclusion: There is a significant positive correlation between the margin of the intracranial meningioma lesion and the histopathologic grade according to WHO 2016.

Keywords: Intracranial meningioma, WHO 2016 histopathologic grade, CT Scan.