Korelasi Gambaran Nekrosis Nodal Metastasis pada Ultrasonografi Pasien Kanker Nasofaring dengan *Systemic Immune-Inflammation Index* (SII)

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INTISARI

Tujuan: Penelitian ini bertujuan untuk mengetahui korelasi antara gambaran nekrosis nodal metastasis (NM) pada ultrasonografi (USG) pasien kanker nasofaring (KNF) dengan *systemic immune-inflammation index* (SII).

Metode: Penelitian ini merupakan jenis penelitian observasional analitik korelatif dengan desain penelitian *cross-sectional*. Pengambilan data dilakukan secara retrospektif dari data sekunder pasien limfadenopati (LA) leher, yang telah menjalani pemeriksaan USG, patologi anatomi (PA), dan darah rutin di RSUP Dr. Sardjito pada periode Januari 2020 – Agustus 2022. Pengambilan sampel dilakukan secara *consecutive non-random sampling*. Subjek terpilih sesuai dengan kriteria inklusi dan eksklusi. Selanjutnya, dilakukan penilaian terhadap gambaran nekrosis NM pada USG dan hasilnya dikorelasikan dengan nilai SII.

Hasil: Jumlah sampel sebanyak 30 subjek dari data pasien yang terkonfirmasi menderita KNF dan mengalami NM leher berdasarkan hasil pemeriksaan PA. Sebagian besar berjenis kelamin laki-laki sebanyak 20 subjek (66,7%). Sebaran usia didominasi pada kelompok usia 56-65 tahun sebanyak 14 subjek (46,68%) dan diikuti oleh kelompok usia 46-55 tahun sebanyak 10 subjek (33,33%). *Mean* standar deviasi (SD) nilai SII didapatkan 2590 $\pm$3815,02 (dalam 10^9/L). Uji korelasi antara gambaran nekrosis NM pada USG pasien KNF dengan SII menunjukkan nilai p sebesar 0,180 dan nilai koefisien korelasi (r) sebesar 0,150; yang bermakna tidak terdapat korelasi antara keduanya.

Kesimpulan: Tidak terdapat korelasi yang bermakna secara statistik antara gambaran nekrosis nodal metastasis (NM) pada USG pasien kanker nasofaring (KNF) dengan nilai *systemic immune-inflammation index* (SII), dengan nilai p sebesar 0,180 dan r sebesar 0,150. Secara deskriptif, tampak peningkatan nilai SII pada kelompok KNF dengan nekrosis NM yaitu 3.465,05 $\pm$ 5.631,34 (dalam 10^9/L), dibandingkan dengan kelompok KNF tanpa nekrosis NM, dengan nilai SII yaitu 2.083,87 $\pm$ 2.256,69 (dalam 10^9/L).

Kata Kunci: kanker nasofaring, nekrosis nodal metastasis, *systemic immune-inflammation index* (SII), USG

The Correlation Between Metastatic Necrotic Node Feature on Ultrasonography of Nasopharyngeal Cancer Patients with Systemic Immmune-Inflammation Index (SII)

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ABSTRACT

Objectives: To correlate metastatic node necrosis (MNN) features based on ultrasonography (USG) to systemic immune-inflammation index (SII) values in nasopharyngeal cancer (NPC) patients.

Methods: This study was a correlative analytic observational with a cross-sectional research design. Data were collected retrospectively from secondary data of patients who had undergone an ultrasound examination of the neck at Dr. Sardjito Hospital for January 2020 – August 2022. Sampling was done by consecutive non-random sampling. Subjects were selected according to the inclusion and exclusion criteria. An assessment of the MNN feature on ultrasound was performed and the results were correlated with the SII.

Results: There were 30 subjects from the data of nasopharyngeal cancer (NPC) patients. Most of the gender was male 20 subjects (66.7%). The age distribution is dominated by the age group 56-65 years as many as 14 subjects (46.68%) and followed by the age group 46-55 years as many as 10 subjects (33.33%). The mean standard deviation (SD) of the SII value was 2590 ±3815.02. The correlation test between the MNN feature on USG and the SII value showed p value = 0.180 and a correlation coefficient (r) value = 0.150; which means there is no correlation between the two.

Conclusions: There was no statistically significant correlation between the appearance of metastatic node necrosis (MNN) on USG of NPC patients and systemic immune-inflammation index (SII) values (p=0.180; r=0.150). Descriptively, there was an increase of the SII value in the nasopharyngeal cancer (NPC) patients group with metastatic node necrosis, namely $3,465.05 \pm 5,631.34$ (in 10^9/L), compared to the NPC group without metastatic node necrosis, with an SII value namely $2,083.87 \pm 2,256.69$ (in 10^9/L).

Keywords: nasopharyngeal cancer, metastatic node necrosis, *systemic immune-inflammation index* **(SII), USG**