INTISARI

PROGNOSTIC NUTRITIONAL INDEX SEBAGAI FAKTOR PROGNOSTIK AMPUTASI PADA PASIEN ULKUS KAKI DIABETIK TERINFEKSI DI RSUP DR. SARDJITO

Ryan Viantino Pratama[1], Rizka Humardewayanti Asdie[2], Hemi Sinorita[3]
[1]PPDS Ilmu Penyakit Dalam FKKMK UGM
[2]Divisi Tropik Infeksi, Departemen Ilmu Penyakit Dalam FKKMK UGM
[3]Divisi Endokrin Metabolik, Departemen Ilmu Penyakit Dalam FKKMK UGM

Pendahuluan: Ulkus kaki diabetik terinfeksi adalah komplikasi serius diabetes melitus yang sering berakhir dengan amputasi. *Prognostic Nutritional Index* (PNI) merupakan indikator status nutrisi dan imunitas yang berpotensi menjadi factor prognostic risiko amputasi pada ulkus kaki diabetik terinfeksi.

Tujuan: Menganalisis hubungan PNI rendah dengan status amputasi pada pasien ulkus kaki diabetik terinfeksi, menghitung besar risikonya melalui rasio prevalensi dan mengidentifikasi faktor lain yang berkontribusi.

Metode: Studi observasional retrospektif dengan desain *cross sectional* di RSUP dr. Sardjito Yogyakarta, melibatkan 181 pasien dengan ulkus kaki diabetik terinfeksi. PNI dihitung berdasarkan kadar albumin serum dan jumlah limfosit total. Analisis menggunakan regresi logistik biner untuk menghitung rasio prevalensi (PR) beserta IK 95%, serta kurva ROC untuk menentukan *cut-off* optimal PNI.

Hasil: *Cut-off* PNI 41,425 (AUC 0,606) diperoleh dari kurva ROC. Dari 181 subjek, angka amputasi tercatat sebesar 26,5%. Analisis bivariat menunjukkan PNI rendah berhubungan signifikan dengan peningkatan prevalensi amputasi (p 0,033; PR 3,05; 95% CI: 1,094-8,473). Analisa multivariat memperkuat temuan tersebut, dimana PNI rendah tetap memiliki prevalensi amputasi lebih tinggi secara signifikan setelah dikontrol variabel lain (p 0,009; aPR 4,256; 95% CI 1,429-12,674). Penyakit vaskular juga ditemukan signifikan terhadap kejadian amputasi (aPR=2,827; p=0,040; 95% CI: 1,057-7,614)

Kesimpulan: PNI rendah dan status penyakit vaskular berhubungan signifikan dengan prevalensi amputasi yang tinggi pada pasien ulkus kaki diabetik terinfeksi sehingga penting untuk menilai PNI dalam evaluasi risiko amputasi.

Kata kunci: *Prognostic Nutritional Index*, ulkus kaki diabetik terinfeksi, amputasi, prevalensi, prognostik

ABSTRACT

PROGNOSTIC NUTRITIONAL INDEX AS PROGNOSTIC FACTOR FOR AMPUTATION IN PATIENTS WITH INFECTED DIABTEIC FOOT ULCER AT DR. SARDJITO GENERAL HOSPITAL

Ryan Viantino Pratama[1], Rizka Humardewayanti Asdie[2], Hemi Sinorita[3]
[1]Internal Medicine Resident FKKMK UGM
[2] Division of Tropical Infectious Disease, Internal Medicine Department FKKMK UGM
[3]Divison of Endocrine Metabolic, Internal Medicine Department FKKMK UGM

Background: Infected diabetic foot ulcer (IDFU) is a serious complication of diabetes mellitus that often leads to amputation. The Prognostic Nutritional Index (PNI) is an indicator of nutritional and immune status, which has the potential to serve as a prognostic factor for the risk of amputation in patients with IDFU.

Objective: To analyse the association between low PNI and amputation status in patients with IDFU, to estimate the magnitude of risk using prevalence ratios, and to identify other contributing factors.

Methods: This retrospective observational study with a cross-sectional design was conducted at Dr. Sardjito General Hospital, Yogyakarta, involving 181 patients with IDFU. PNI was calculated based on serum albumin concentration and total lymphocyte count. Binary logistic regression was used to calculate prevalence ratios (PR) with 95% confidence intervals (CI), and a receiver operating characteristic (ROC) curve was used to determine the optimal PNI cut-off value.

Results: The optimal PNI cut-off value of 41.425 (AUC=0.606) was obtained from the ROC curve. Among the 181 subjects, the amputation rate was 26.5%. Bivariate analysis showed that low PNI was significantly associated with a higher prevalence of amputation (p=0.033; PR=3.05; 95% CI: 1.094–8.473). Multivariate analysis confirmed that low PNI remained significantly associated with a higher prevalence of amputation after adjusting for other variables (p=0.009; aPR=4.256; 95% CI: 1.429–12.674). Vascular disease was also significantly associated with amputation (aPR=2.827; p=0.040; 95% CI: 1.057–7.614).

Conclusion: Low PNI and the presence of vascular disease are significantly associated with a higher prevalence of amputation in patients with IDFU. Therefore, PNI assessment is important in evaluating the risk of amputation in this patient population.

Keywords: Prognostic Nutritional Index, infected diabetic foot ulcer, amputation, prevalence, prognostic factor.