

POLITEKNIK KESEHATAN KEMENKES TANJUNG KARANG
PROGRAM STUDI TEKNOLOGI LABORATORIUM MEDIS
PROGRAM SARJANA TERAPAN

Skripsi, Juli 2025

Eldest Saputra

Hubungan Kadar TNF- α dengan Jumlah Trombosit pada Pasien Diabetes Melitus Tipe 2 dengan Komplikasi Ulkus Diabetikum

xvi + 36 Halaman, 6 Gambar, 7 Tabel, dan 10 Lampiran

ABSTRAK

Diabetes melitus tipe 2 dengan komplikasi ulkus diabetikum merupakan salah satu permasalahan kesehatan kronik yang kompleks. Peradangan kronik yang menyertai ulkus dapat meningkatkan kadar sitokin proinflamasi seperti Tumor Necrosis Factor- α (TNF- α), yang diduga berkaitan dengan aktivasi trombosit. Tujuan penelitian ini adalah untuk Mengetahui hubungan kadar TNF- α dengan jumlah trombosit pada pasien diabetes melitus tipe 2 dengan komplikasi ulkus diabetikum. Penelitian ini merupakan studi analitik dengan pendekatan cross-sectional. Sampel sebanyak 30 pasien dipilih secara purposive sampling. Data kadar TNF- α diperoleh dari pemeriksaan ELISA, sedangkan jumlah trombosit dari data rekam medis. Uji *Spearman correlation* digunakan karena data tidak berdistribusi normal. Rata-rata jumlah trombosit adalah 318.400 ± 67.170 sel/ μ L dan rerata kadar TNF- α adalah $45,44 \pm 46,40$ ng/L. Terdapat hubungan yang signifikan antara kadar TNF- α dan jumlah trombosit dengan nilai koefisien korelasi Spearman $r = 0,8837$ ($p < 0,05$). Terdapat hubungan positif yang signifikan antara kadar TNF- α dan jumlah trombosit pada pasien DM tipe 2 dengan ulkus diabetikum, yang menunjukkan bahwa inflamasi berperan dalam aktivasi trombosit pada kondisi ini.

Kata Kunci :TNF- α , Trombosit, Diabetes Melitus tipe 2, Ulkus Diabetikum,
Daftar Bacaan : 25 (2010-2024)

TANJUNGKARANG HEALT POLYTECHNIC
MEDICAL LABORATORY TECHNOLOGY STUDY PROGRAM
UNDERGRADUTE PROGRAM

Thesis, Juli 2025

Eldest Saputra

Relationship Between Tnf-A Levels And Platelet Count In Type 2 Diabetes Mellitus Patients With Diabetic Ulcer Complications

xvi + 36 pages, 6 Figures, 7 Tables, dan 10 Adatttachment

ABSTRAK

Type 2 diabetes mellitus with diabetic ulcer complications is a complex chronic health problem. Chronic inflammation that accompanies ulcers can increase levels of proinflammatory cytokines such as Tumor Necrosis Factor- α (TNF- α), which is thought to be related to platelet activation. The purpose of this study was to determine the relationship between TNF- α levels and platelet counts in patients with type 2 diabetes mellitus with diabetic ulcer complications. This study was an analytical study with a cross-sectional approach. A sample of 30 patients was selected by purposive sampling. Data on TNF- α levels were obtained from ELISA examination, while platelet counts were obtained from medical records. The Spearman correlation test was used because the data were not normally distributed. The average platelet count was $318,400 \pm 67,170$ cells/ μ L and the average TNF- α level was 45.44 ± 46.40 ng/L. There is a significant correlation between TNF- α levels and platelet counts with a Spearman correlation coefficient value of $r = 0.8837$ ($p < 0.05$). There is a significant positive correlation between TNF- α levels and platelet counts in type 2 DM patients with diabetic ulcers, indicating that inflammation plays a role in platelet activation in this condition.

Kata Kunci : TNF- α , Platelets, Type 2 Diabetes Mellitus, Diabetic Ulcers
Daftar Bacaan : 25 (2010-2024)