

ABSTRACT

CORRELATION OF FERRITIN LEVELS WITH NEUTROPHIL LYMPHOCYTE RATIO (NLR) IN PATIENTS WITH BETA THALASSEMIA MAJOR AT DR. H. ABDUL MOELOEK HOSPITAL BANDAR LAMPUNG IN 2023

By

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Background: Beta thalassemia major is a classification of thalassemia with the worst symptoms caused by the absence of beta globin chains in hemoglobin synthesis. Iron levels in the body of patients with beta thalassemia major can be detected through ferritin. Systemic inflammation that occurs in patients with beta thalassemia major can be identified by calculating the Neutrophil Lymphocyte Ratio (NLR). The purpose of this study was to determine the correlation between ferritin levels and NLR in patients with beta thalassemia major.

Method: This analytical study uses a cross-sectional design to study the relationship between the influencing and dependent variables with the approach method, observation, and data collection carried out simultaneously at one time. The data is processed using the Pearson correlation test.

Result: The results of the significance of the p-value were found to be 0.001 (<0.05) and the Pearson correlation coefficient was 0.391. This indicates a weak correlation between ferritin levels and NLR in patients with beta thalassemia major.

Conclusion: There is a correlation between ferritin levels and Neutrophil Lymphocyte Ratio (NLR) levels in beta thalassemia major patients at Dr. H. Abdul Moeloek Bandar Lampung Regional Hospital in 2023.

Keyword: beta thalassemia major, ferritin, neutrophil lymphocyte ratio, NLR

ABSTRAK

KORELASI KADAR FERITIN DENGAN *NEUTROPHIL LYMPHOCYTE RATIO* (NLR) PADA PASIEN TALASEMIA BETA MAYOR DI RSUD DR. H. ABDUL MOELOEK BANDAR LAMPUNG TAHUN 2023

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Latar Belakang: Talasemia beta mayor adalah klasifikasi talasemia dengan gejala paling buruk yang disebabkan tidak adanya rantai globin beta dalam sintesis hemoglobin. Kadar zat besi dalam tubuh pasien talasemia beta mayor dapat dideteksi lewat feritin. Inflamasi sistemik yang terjadi pada pasien talasemia beta mayor dapat diketahui dengan perhitungan *Neutrophil Lymphocyte Ratio* (NLR). Tujuan penelitian ini adalah untuk mengetahui korelasi antara kadar feritin dan NLR pada pasien talasemia beta mayor.

Metode: Penelitian analitik ini menggunakan desain *cross sectional* (potong lintang) untuk mempelajari hubungan antara variabel pengaruh dan terikat dengan metode pendekatan, observasi, dan juga pengumpulan data yang dilakukan bersamaan pada satu waktu. Data diproses dengan uji korelasi pearson.

Hasil: Ditemukan hasil signifikansi *p-value* sebesar 0.001 (<0.05) dan koefisien korelasi pearson sebesar 0.391. Hal ini menandakan adanya korelasi lemah antara kadar feritin dengan NLR pada pasien talasemia beta mayor.

Kesimpulan: Terdapat korelasi antara kadar feritin dengan *Neutrophil Lymphocyte Ratio* (NLR) pada pasien talasemia beta mayor di RSUD Dr. H. Abdul Moeloek Bandar Lampung tahun 2023.

Kata Kunci: talasemia beta mayor, feritin, *neutrophil lymphocyte ratio*, NLR