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Hubungan Lama Transfusi Darah Dan Frekuensi Transfusi Darah Dengan Aktivitas Enzim *Gamma-Glutamyl Transferase* (GGT) Pada Pasien *Thalassemia* Di RSUD Dr. H. Abdul Moeloek Provinsi Lampung

xiv + 42 Halaman, 3 Tabel, 10 Gambar, 15 Lampiran

ABSTRAK

Thalassemia mayor adalah kelainan genetik darah yang menyebabkan gangguan produksi hemoglobin, sehingga pasien memerlukan transfusi darah rutin seumur hidup. Transfusi darah jangka panjang dapat menyebabkan penumpukan zat besi, terutama di hati, yang memicu kerusakan sel hepatosit. Salah satu indikator kerusakan hati adalah peningkatan enzim *Gamma-Glutamyl Transferase* (GGT). Penelitian ini bertujuan untuk mengetahui hubungan antara frekuensi dan lama transfusi darah dengan aktivitas enzim GGT pada pasien *thalassemia* mayor. Penelitian ini menggunakan pendekatan kuantitatif analitik dengan desain cross-sectional. Sebanyak 32 pasien *thalassemia* mayor diambil secara purposive sampling di RSUD Dr. H. Abdul Moeloek. Analisis data menggunakan uji Pearson dan Spearman. Hasil uji Spearman menunjukkan tidak terdapat hubungan signifikan antara frekuensi transfusi dan kadar GGT ($p\text{-value} = 0,355$). Sebaliknya, uji Pearson menunjukkan hubungan positif signifikan antara lama transfusi dan kadar GGT ($p\text{-value} = 0,036$). Dapat disimpulkan bahwa semakin lama durasi transfusi, kadar GGT cenderung meningkat, sedangkan frekuensi tidak berpengaruh secara signifikan.

Kata Kunci : *Thalassemia*, transfusi darah, lama transfusi, frekuensi transfusi, GGT
Daftar Bacaan : 61 (1983-2024)

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Relationship Between Duration and Frequency of Blood Transfusions and Gamma-Glutamyl Transferase (GGT) Enzyme Activity in Thalassemia Patients at RSUD Dr. H. Abdul Moeloek, Lampung Province

xiv + 42 Pages, 3 Tables, 10 Pictures, 15 Attachment

ABSTRACT

Thalassemia major is a genetic blood disorder that disrupts hemoglobin production, requiring regular lifelong blood transfusions. Long-term blood transfusions can cause iron accumulation, especially in the liver, which can lead to hepatocyte cell damage. One indicator of liver damage is an increase in the Gamma-Glutamyl Transferase (GGT) enzyme. This study aims to determine the relationship between the frequency and duration of blood transfusions with GGT enzyme activity in thalassemia major patients. This study used a quantitative analytical approach with a cross-sectional design. A total of 32 thalassemia major patients were selected through purposive sampling at Dr. H. Abdul Moeloek Regional General Hospital. Data analysis used the Pearson and Spearman tests. The Spearman test results showed no significant relationship between transfusion frequency and GGT levels ($p\text{-value} = 0.355$). Conversely, the Pearson test showed a significant positive relationship between transfusion duration and GGT levels ($p\text{-value} = 0.036$). It can be concluded that the longer the duration of transfusion, the higher the GGT levels, while the frequency did not have a significant effect.

Keyword : *Thalassemia, blood transfusion, transfusion duration transfusion frequency, GGT*

Reading List : *61 (1983-2024)*