PERBANDINGAN NILAI INDEKS ERITROSIT SEBELUM DAN SESUDAH TRANSFUSI PADA PASIEN THALASEMIA BETA MAYOR

ABSTRAK

Beta-thalassemia adalah sekelompok kelainan darah herediter yang ditandai dengan berkurangnya atau tidak adanya sintesis rantai globin beta, yang mengakibatkan penurunan Hb dalam sel darah merah, penurunan produksi sel darah merah dan anemia. Kekurangan produksi rantai globin menyebabkan hemolisis pada hemoglobin. Salah satu pengobatan yang dilakukan oleh penderita thalasemia adalah transfusi darah setiap dua sampai empat minggu. Beta-thalassemia khas diidentifikasi dengan analisis indeks eritrosit, yang menunjukkan MCV rendah dan MCH rendah. Thalasemia mayor ditandai dengan penurunan kadar hemoglobin (<7 g/dL), mean corpuscular volume (MCV) >50 − < 70 fL dan mean corpuscular hemoglobin (MCH) >12 − < 20 pg. Penelitian ini bertujuan untuk mengetahui perbedaan nilai indeks eritrosit sebelum dan sesudah transfusi pada pasien thalasemi beta mayor. Metode penelitian yang digunakan adalah deskriptif yang dilakukan pada bulan Juni 2021 sebanyak 30 sampel , kemudian diolah dengan Uji Paired T-Test. Hasil rata-rata indeks eritrosit sebelum transfusi diperoleh MCV 68,5 fL, MCH 21,9 pg, MCHC 31,9 g/dL. Hasil rata-rata indeks eritrosit sesudah transfusi diperoleh MCV 69,8 fL, MCH 22,5 pg, MCHC 32,7 g/dL. Hasil analisa Paired T-Test menunjukkan bahwa indeks eritrosit sebelum dan sesudah transfusi pada pasien thalasemia beta mayor didapatkan nilai p=0,000 (p<0,05). Kesimpulan hasil penelitian menunjukkan terdapat perbedaan bermakna nilai indeks eritrosit sebelum dan sesudah transfusi pada pasien thalasemia beta mayor.

Kata kunci : indeks eritrosit, thalasemia beta mayor, transfusi darah.

COMPARISON OF ERYTHROCYTE INDEX VALUE BEFORE AND AFTER TRANSFUSION IN BETA MAJOR THALASEMIA PATIENTS

ABSTRACT

Beta-thalassemia is a group of hereditary blood disorders characterized by reduced or absent beta globin chain synthesis, resulting in decreased Hb in red blood cells, decreased production of red blood cells and anemia. Lack of globin chain production causes hemolysis of hemoglobin. One of the treatments performed by people with thalassemia is blood transfusions every two to four weeks. Typical beta-thalassemia was identified by analysis of the erythrocyte index, which showed low MCV and low MCH. Thalassemia major is characterized by a decrease in hemoglobin levels (<7 g/dL), mean corpuscular volume (MCV) >50 < 70 fL and mean corpuscular hemoglobin (MCH) >12 < 20 pg. This study aims to determine the difference in erythrocyte index values before and after transfusion in patients with beta thalassemia major. The research method used is descriptive which was carried out in June 2021 as many as 30 samples, then processed with the Paired T-Test. The average results of the erythrocyte index before transfusion were MCV 68.5 fL, MCH 21.9 pg, MCHC 31.9 g/dL. The results of the average erythrocyte index after transfusion obtained MCV 69.8 fL, MCH 22.5 pg, MCHC 32.7 g/dL. The results of the Paired T-Test analysis showed that the erythrocyte index before and after transfusion in beta thalassemia major patients obtained p value = 0.000 (p <0.05). The conclusion of the study showed that there was a significant difference in the erythrocyte index value before and after transfusion in beta thalassemia major patients.

Keywords: erythrocyte index, beta thalassemia major, blood transfusion.