

Hubungan Jumlah Retikulosit Dengan Indeks Eritrosit Pada Pasien Gagal Ginjal Kronis di Rumah Sakit PKU Muhammadiyah Yogyakarta

Denni Rolianti¹, Muji Rahayu², Evi Fitriany³

Jurusan Teknologi Laboratorium Medis Poltekkes Kemenkes Yogyakarta, Jl.
Ngadinegaran MJ 3 No.62, Mantrijeron, Kota Yogyakarta.

Email: denni.rolianty@gmail.com, evi.fitriany79@gmail.com

ABSTRAK

Latar Belakang: Penyakit Gagal Ginjal Kronik (GGK) bersifat progresif dengan prevalensi cukup tinggi di Indonesia, termasuk di Yogyakarta. Pasien GGK sering menjalani hemodialisa yang dapat memicu anemia. Anemia pada GGK terutama akibat penurunan produksi hormon eritropoetin akibat kerusakan ginjal, serta faktor lain seperti defisiensi zat besi. Pemeriksaan indeks eritrosit dan hitung retikulosit penting untuk menegaskan diagnosis anemia, karena mencerminkan aktivitas sumsum tulang dan pematangan eritrosit. Pada pasien GGK, jumlah retikulosit cenderung rendah dan indeks eritrosit berubah.

Tujuan penelitian: Penelitian ini bertujuan untuk mengetahui hubungan antara jumlah retikulosit dengan indeks eritrosit pada pasien GGK di Rumah Sakit PKU Muhammadiyah Yogyakarta.

Metode penelitian: Jenis penelitian ini analitik kuantitatif dengan pendekatan observasional dan desain *Cross-sectional*. Sampel berupa darah EDTA pasien GGK yang menjalani hemodialisa. Dilakukan pemeriksaan indeks eritrosit terlebih dahulu lalu dilanjutkan dengan pemeriksaan jumlah retikulosit secara manual.

Hasil: Mayoritas pasien GGK berjenis kelamin laki-laki 101 (59%) dan perempuan 70 (41%) dengan usia terbanyak (48%) pada kelompok usia pra lansia (45-59 tahun). Hasil indeks eritrosit menunjukkan (92%) mengalami anemia normositik normokrom, jumlah retikulosit normal (45%), (38%) di atas normal. Secara statistik tidak terdapat hubungan yang signifikan antara jumlah retikulosit dan indeks eritrosit.

Kesimpulan: Tidak terdapat hubungan antara jumlah retikulosit dan indeks eritrosit pada pasien GGK di Rumah Sakit PKU Muhammadiyah Yogyakarta.

Kata kunci: *Gagal Ginjal Kronis, Jumlah Retikulosit, Indeks Eritrosit*

The Correlation between Reticulocyte Count and Erythrocyte Indices in Chronic Kidney Disease Patients at PKU Muhammadiyah Hospital Yogyakarta

Denni Rolianti¹, Muji Rahayu², Evi Fitriany³

Department of Medical Laboratory Technology, Poltekkes Kemenkes Yogyakarta,
Jl. Ngadinegaran MJ 3 No.62, Mantrijeron, Yogyakarta City

Email: denni.rolianty@gmail.com, evi.fitriany79@gmail.com

ABSTRACT

Background: Chronic Kidney Disease (CKD) is progressive and has a fairly high prevalence in Indonesia, including in Yogyakarta. CKD patients often require hemodialysis therapy, which can affect clinical conditions, one of which is anemia. Anemia in CKD is mainly caused by decreased production of erythropoietin hormone due to kidney damage, as well as other factors such as iron deficiency. Examination of erythrocyte indices and reticulocyte count is important to establish the diagnosis of anemia, as these two parameters reflect bone marrow activity and erythrocyte maturation. In CKD patients, reticulocyte count tends to be low and erythrocyte indices are altered.

Objective: This study aimed to determine the correlation between reticulocyte count and erythrocyte indices in CKD patients at PKU Muhammadiyah Hospital Yogyakarta.

Methods: This was a quantitative analytical study with an observational approach using a cross-sectional design. This study used EDTA blood from CKD patients undergoing hemodialysis. Erythrocyte indices were examined first, followed by manual reticulocyte count.

Results: The results showed that the majority of CKD patients were male (101 respondents, 59%) and female (70 respondents, 41%), with the majority age group (48%) being pre-elderly (45-59 years). Erythrocyte indices examination showed that most respondents had normocytic normochromic anemia (92%). Reticulocyte count examination showed that the majority of respondents had a normal reticulocyte count (45.1%), while 38% of respondents had a reticulocyte count above normal. Statistically, there was no significant correlation between reticulocyte count and erythrocyte indices in CKD patients at PKU Muhammadiyah Hospital Yogyakarta.

Conclusion: There is no correlation between reticulocyte count and erythrocyte indices in CKD patients at PKU Muhammadiyah Hospital Yogyakarta.

Keywords: *Chronic Kidney Disease, Reticulocyte Count, Erythrocyte Indices*