

Tesis

GAMBARAN DISKREPANSI GOLONGAN DARAH ABO PADA PASIEEN LEUKEMIA



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GAMBARAN DISKREPANSI GOLONGAN DARAH ABO PADA PASIEN LEUKEMIA

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ABSTRAK

Pendahuluan: Sistem golongan darah ABO berperan penting dalam keamanan transfusi darah. Pada pasien keganasan hematologi seperti leukemia, dapat terjadi diskrepansi golongan darah ABO akibat penurunan atau hilangnya antigen maupun antibodi yang berpotensi menimbulkan kesalahan penetapan golongan darah. Penelitian ini bertujuan untuk mengetahui gambaran diskrepansi golongan darah ABO pada pasien leukemia.

Metode: Penelitian ini merupakan studi deskriptif potong lintang yang melibatkan 210 pasien leukemia yang memenuhi kriteria inklusi dan eksklusi. Pemeriksaan golongan darah ABO dilakukan menggunakan metode *gel card*. Data dianalisis secara deskriptif.

Hasil: Ditemukan 13 kasus (6,3%) diskrepansi golongan darah ABO dari 210 pasien leukemia. Diskrepansi terjadi pada leukemia limfoblastik akut sebanyak 6 kasus (2,9%), diikuti leukemia mieloid akut 4 kasus (1,9%), leukemia mieloid kronik 2 kasus (1%), dan leukemia limfositik kronik 1 kasus (0,5%). Dari total 10 kasus diskrepansi tipe I (pola reaksi aglutinasi *weak/loss antibody*), terjadi pada leukemia limfoblastik akut (60%), pada leukemia mieloid akut (20%), leukemia mieloid kronik (10%), dan leukemia limfositik kronik (10%). Diskrepansi tipe II (pola reaksi aglutinasi *weak/loss antigen*) ditemukan pada leukemia mieloid akut (66,7%) dan leukemia mieloid kronik (33,3%). Tidak ditemukan diskrepansi tipe III maupun IV, serta tidak dijumpai pola reaksi aglutinasi *extra antigen/antibody* maupun *mixed field*.

Kesimpulan: Diskrepansi golongan darah ABO tipe I (pola reaksi aglutinasi *weak/loss antibody*) pada penelitian ini ditemukan pada semua tipe leukemia, sedangkan diskrepansi tipe II (pola reaksi aglutinasi *weak/loss antigen*) hanya ditemukan pada leukemia mieloid akut dan leukemia mieloid kronik. Temuan ini menekankan pentingnya interpretasi serologis yang cermat, khususnya dalam praktik transfusi pada pasien leukemia.

Kata kunci: leukemia, golongan darah ABO, diskrepansi, antigen

PROFILE OF ABO BLOOD GROUP DISCREPANCIES IN LEUKEMIA PATIENTS

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ABSTRACT

Background: The ABO blood group system plays an important role in the success of blood transfusions. In patients with hematologic malignancies such as leukemia, ABO blood group discrepancies may occur due to the reduction or loss of antigens or antibodies. These discrepancies can lead to errors in blood group determination. This study aimed to describe the ABO blood group discrepancies in patients with leukemia.

Methods: This descriptive cross-sectional study involved 210 leukemia patients who met the inclusion and exclusion criteria. ABO blood grouping was performed using the gel card method. Data were analyzed descriptively using statistical software.

Results: A total of 13 cases (6,3%) of ABO blood group discrepancies were found. Discrepancies occurred in patients with acute lymphoblastic leukemia (6 cases, 2,9%), acute myeloid leukemia (4 cases, 1,9%), chronic myeloid leukemia (2 cases, 1%), and chronic lymphocytic leukemia (1 case, 0,5%). Type I discrepancies (weak/loss of antibody) were found in acute lymphoblastic leukemia (6 cases, 60%), acute myeloid leukemia (2 cases, 20%), chronic myeloid leukemia (1 case, 10%), and chronic lymphocytic leukemia (1 case, 10%). Type II discrepancies (weak/loss of antigen) were found in acute myeloid leukemia (2 cases, 66.7%) and chronic myeloid leukemia (1 case, 33.3%). No Type III or IV discrepancies were found, and there were no extra antigen/antibody or mixed-field agglutination patterns observed.

Conclusion: Type I ABO blood group discrepancies were found in all types of leukemia, whereas Type II discrepancies were observed only in acute myeloid leukemia and chronic myeloid leukemia. Weak/loss of antibody agglutination patterns occurred in all leukemia types, while weak/loss of antigen agglutination was found only in acute and chronic myeloid leukemia. These findings highlight the importance of careful serological interpretation, particularly in transfusion practice for leukemia patients.

Keywords: leukemia, ABO blood group, discrepancy, antigen