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Anais

THE EXPRESSION OF CD59 AND CD55 IN HEALTHY BRAZILIAN INDIVIDUALS ON RED CELLS AND LEUCOCYTES

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Paroxysmal nocturnal hemoglobinuria (PNH) is a disorder characterized by a defect in the GPI anchor due to an abnormality in the PIG-A gene. This leads to partial or complete absence of certain GPI-linked proteins, particularly CD59 and CD55, that have a major role in the inhibition of the action of complement on the cellular membrane of blood cells. PNH should be considered in a patient with: evidence of intravascular hemolysis; granulocytopenia; thrombocytopenia with elevation in the reticulocyte count; venous thrombosis; aplastic anemia; and myelodysplastic syndrome. The expression of CD59 and CD55 in healthy Brazilian individuals has not been studied. We analyzed the expression of CD59 and CD55 on red cells and leucocytes in twenty blood donors (n=20) by flow cytometry. Granulocytes CD55 and CD59 ranged from 99.03% to 100.2% and 99.8% to 100%; monocytes CD55 and CD59 ranged from 97.62% to 100.16% and 94.69% to 100.17%; lymphocytes CD55 and CD59 ranged from 99.76% to 100% and 95.34% to 100.2%; and red cells CD55 and CD59 ranged from 99.02% to 99.02% and 98.87% to 100.2% respectively. We concluded that in healthy individuals a mean the 97% of leucocytes and red cells express CD55 and CD59. These data are important to obtain a reference parameter to analyze patients with suspect HPN.