

PROSPECTIVE STUDY ON THE Rh D VARIANTS IN BUCAREST BLOOD DONORS POPULATION

A. Zăgrean S. Sirian

Lab. Imunohematologie C.T.S.M.Bucarest
Roumania

The aim of this study was to monitor and to compare the different RhD variants and their frequency during the last five years in CTSMB and their transfusion implications.

Material/Method: Equipments: semiautomatic analyzer Zenyx (Biotest), fully automated system Qwalys (Diagast), Ortho BoiVue System, Dia Med System and ID partial RhD Typing set.

The negative test was carried out in comparison with ID DiaMed Anti Ig G cassette + Anti D weak serum, technique based on the Coombs test.

The A number of 260 055 samples were taken and processed for Rh D : 246 055 samples from donors and 14 600 samples from patients, tested routinely with different monoclonal AntiD (Ig M and IgM + Ig G) All negative or weak reactions (1+ - 3+) were confirmed with polyclonal anti D ser and molecular biology testing.

Samples were monitored by using procedures of daily counting from registers and informatic system (the last year 2011-2112) It was used comparison from annual centralized data, statistical retrospective and archives data study.

Results: - 72 samples were D weak and D partial from different category, tested by molecular biology: 58 D weak; 14 partial D

- different variant fenotyping are identifying in RhD negative samples : dd Cc ee kk 6,44 % // dd cc Ee kk 1,11 % // dd cc ee KK 4,23 % // dd Cc ee KK 0,50 % // dd CcEe kk 0,10 %

- the correlation ABO/ phenotype Rh : Cc ee kk 0,10%A// 0,10%B // 0,31%O // Cc Ee kk 0,10%A

Conclusions: The RhD category is very important in order to establish the transfusion strategy.

Using appropriate reagent and methods it is possible to detect the variants D weak confirmed by molecular biology

The usualy phenotyp Rh D negativ are ddccee but the presence of diferent 11,87% phenotyp variants are posibil

It is necessary to investigate the anti –D alloimmunization rate of the variants to provide a better immune transfusion service