

C13. PROSPECTIVE STUDY ON THE Rh D VARIANTS IN BUCAREST BLOOD DONORS POPULATION

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Objective:

The aim of this study was to monitor and to compare the different RhD variants and antibodies and their frequency during the last year in CTSMB

Material/Method:

Equipments: semiautomatic analyzer Zenyx (Biotest), fully automated system Qwalys (Diagast), Ortho BoiVue System, Dia Med System.

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

A number of 10540 samples were taken and processed for Rh D 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 .

For the detection and identification of antibodies were used DiaMed and Ortho Bio Vue panels

Results

- 15 samples (0.14%) were weak D and partial D from various category

- the antigens ranged between 7.07% D and 87.29% E

- in the Rh - negative the more functional variants were:

dd cc ee 87,62 %// 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 %

- Correlation weak D variant Rh D blood group looks like this: Cc ee kk 0.10% A// 0.10% B // 0.31% O // Cc Ee A KK 0.10% - 37.6% of the samples showed positive DAI anti Rh system antigens, in 15.5 % cases we detected antiD antibodies.

Conclusions: Setting Rh phenotype is absolutely necessary in the transfusion.

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.

Besides the classic phenotype Rh (dd ee cc kk) there are other functional variants in percentage of 12,38 % with possible transfusion implicatii.

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