

CLINICAL AND BIOLOGICAL EFFECTS OF BLOOD DONATION BY APHERESYS

E.Negoită

Apheresys departament BTS, Bucharest, Romania

Introduction: The present study analyses the manner in which repeated blood donations by apheresys can affect the health of the donors.

Purpose: By knowing the clinical and biological alterations which occur post repeated blood donations by apheresys, the selection of the blood donors can be influenced.

Materials and method: The study group consists of 100 donors with repeated plasma and platelet donations by apheresys on Haemonetics blood cell separators.

Results: For the study group, minor reactions to citrate were observed on 54% of the donors, lipothymia on 20% and cardiac symptoms on 17%. No platelet counts below that of 100 000/ μ L were recorded post donating. The mean leucocyte count for the ten donations was of 7 205/ μ and it did not vary significantly ($p=0,55$). The minimal lymphocyte count decreased below 1000/ μ L for 6 successive donations. The mean lymphocyte count was of 2047 μ L for the 10 successive donations. The minimum value of the total protein concentration dropped below 6g/dl after 10 donations. The value of total plasmatic calcium decreased under 8,4 mg /dl on 2,5% of the donors after 5 repeated donations. Ionic calcium decreased under 4 mg/dl on 50% of the donors after 5 repeated donations by apheresys.

Conclusions: The clinical and biological immediate and long term changes which occur on blood components by apheresys donors are transitory and do not endanger the health or the life of the donors.