The Transferrin Saturation Profile Among Anaemic Blood Donors

Abstrak:

Iron deficiency remains one of the most frequent adverse effects of blood donation. Iron status test used on blood donor screening is haemoglobin concentration. Other iron status parameters are transferrin saturation. The study aims to determine the profile of transferrin saturation among certain groups of blood donors at the Blood Transfusion Unit of the Indonesian Red Cross Surakarta Branch. The samples were drawn from blood donors at the Blood Transfusion Unit from June to December 2005. A total of 148 specimens were classified into 3 groups consist of 49 first time blood donations as group I, 50 of fifth time blood donations as group II, and 49 of tenth time blood donations as group III. Transferrin saturation was measured by ratio between serum iron and Total Iron Binding Capacity (TIBC). The data analysed by Anova test to distinguish the difference of transferrin saturation among three groups. The results showed the transferrin saturation decreased from group I to group II and from group II to group III. The transferrin saturation among three groups showed significantly difference (p=0.000). It can be concluded that there is a decrease in transferrin saturation according to the blood donation frequency among blood donors at the Blood Transfusion Unit of the Indonesian Red Cross Surakarta Branch. Transferrin saturation measurement is needed for another parameter of iron deficiency anaemia among blood donors.

Keyword:

anaemia, blood donors, transferrin saturation