Prevention of Complications in Blood Transfusion

bracelets of plastic material containing the patient’s name and surname, room and bed number, and Rh group.

Prevention of pyrogen reactions depends on thorough washing and sterilization of the material to be used. As in our country, for economic reasons, we resterilize nearly all the material, including the plastic transfusion fittings, we have designed a special device to introduce them into the autoclave so as to avoid breakages, etc.

In case of reaction, a panel investigation is performed, using known antigens, and in this way we found over 210 incompatible crossmatchings, anti-K-sensitive, anti-Fya, anti-S besides anti-Rh sensitization. Excluding incompatibility due to erythrocyte antigen-antibody, the leukocyte antibodies are then tested, and if a positive result is obtained, leukocyte-free washed red cells are transfused. We always perform isogroup transfusions and we also prefer to use isogroup plasma and, for Rh-negative patients, we take special care in investigating hot antibodies which might simulate Rh antigen. Working on these lines we have been able to decrease the percentage of pyrogen reactions from 7.70% in 1951 to 1.31% in 1957. (We believe that many reactions thought to be caused by pyrogens, in 1951, were not really so.) At the same time, we have always tried to increase the number of our panel donors who, in certain cases, may act as special donors. In 370 determinations we found the following frequencies:

Kell positive: 11%; Cellano positive: 96%; Duffy8, positive: 68%; M positive: 25%; N positive: 25%; MN positive: 50%; S positive: 45%.

199

Observations Regarding the Histiogenesis and Evolution of Siderosis Induced by Repeated Blood Transfusions

I. Liotta, V. Mele and L. Quintiliani
Rome, Italy

Abstract

Visceral siderosis induced in rabbits by means of repeated transfusions of erythrocytes is directly proportional to the amount of hemoglobin iron introduced: it is particularly early and evident in the liver. Special experimental conditions (splenectomy) allow the importance of concomitant factors to be established, in the determination and evolution of hepatic damage.

Some observations are reported on the tissular mechanism involved in the assumption, metabolism, endocellular fixation and conveyance processes of iron.
of erythrocyte origin.