hematological profile of umbilical cord blood and iron reserve in three distinct groups of newborns: term adequate for gestational age (AGA), term small for gestational age (SGA) and preterm AGA. The term SGA newborns presented the highest mean values for hemoglobin, RBC, hematocrit and ferritin, while the preterm AGA newborns exhibited the lowest mean values. In this study, mean values of Red cell distribution width (RDW) were similar in different groups of newborns. The results regarding RBC parameters are similar to those reported in some studies and lower than those observed in others, and are lower than the reference standards usually used in neonatology. Serum ferritin in term AGA newborns was closer to the concentrations reported by some authors but higher than those obtained by others. These differences can be explained by the small sample size of some groups of newborns, especially the preterm AGA group, or due to possible maternal characteristics as discussed above.

Following the example of Nunes et al.,[7] further studies in Brazil to determine hematological parameters and iron burden in neonates must be made to better understand newborn babies at risk of developing iron deficiency. As hepcidin regulates iron homeostasis, future studies of hepcidin expression and regulation in the neonate may also be interesting.

Regardless of the need for more studies, we should avoid iron deficiency during pregnancy to avoid iron deficiency in newborns. All pregnant women should be screened for iron deficiency. During pregnancy, daily iron supplementation can prevent maternal iron deficiency.[2] Finally, the Brazilian Ministry of Health, in order to reduce the prevalence of iron deficiency anemia, recommends iron supplementation for infants and food fortification for older children.

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Complications and life expectancy in sickle cell disease: the greatest challenge

Adérson Araújo

Frequently since the third issue of volume 29 (July-September) of this journal in 2007, we have seen new articles on sickle cell disease.[1] Undoubtedly, the epidemiological relevance of this group of diseases and their intricate pathophysiological mechanisms raise scientific curiosity to try to understand the reasons for the inexorable progression of chronic lesions to molecules and cells, tissues and organs,[2] an evolution that contributes to such low survival rates worldwide.

The article entitled "Study of morbidity and mortality in sickle cell disease," of Paulo Roberto Juliano Martins, Helio Moraes de Souza Braga and Talita Silva from the Regional Blood Bank of Uberaba, Hemominas Foundation, Federal University of Triangulo Mineiro, in this issue shows epidemiological data on morbidity and death that are probably very common to other Brazilian institutions.[3]

It is possible that, in the future, with early care and guidance, a significant reduction in the morbidity and mortality resulting from sickle cell disease will occur. An understanding of the pathophysiological mechanisms[2] and the detection of modulation factors of severity of these diseases[4] may indicate conducts that can reduce the so early loss of life and reduce the suffering of those affected. For now however, what the results of the study[3] reveal is that life expectancy is still less than 45 years old and that most patients suffer complications.

The study also shows that 82% of patients have homozygous sickle cell disease (SS) and that two thirds of all cases have painful crises that lead to hospital treatment despite the availability of hydroxyurea and of its reported benefits. Is it perhaps ineffective or is the medication being underused? What should be done to ameliorate the plight of people with sickle cell disease? Education of caregivers including health

teams from primary care to highly complex institutions, self-care?[5] It is clear that education is fundamental; the structuring of a very specific program has been defended in Jamaica and the USA, with some centers dedicated to the care of pain and of acute and chronic symptoms,[6,7] and to some extent also in Brazil with the care provided by blood centers, some even with an infrastructure to hospitalize patients.

Finally, the study concludes that the epidemiological profile shows a predominance of children and young adults, female and the SS genotype. The hospital admission rates in University Hospital de Clínicas of the Universidade Federal do Triângulo Mineiro and consultation rates in the Regional Blood Center of Uberaba and the low mean age at death confirm the high morbidity and mortality in sickle cell disease. However, the large number of children without complications or admissions reflects the effectiveness of the preventive measures offered by early diagnosis established over the last 10 years.[3]

It would be interesting for other services that attend people with sickle cell disease to follow up this study so that a national registry could be established and coordinated by the Ministry of Health in order to have a national profile with a multicenter model.[8] Also the impact of recently established public policies such as neonatal screening should be assessed in the adult population of the future and all the publications on the disease be developed and distributed by the Ministry of Health.

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What are the characteristics of repeat blood donors?

Ângela Cristina Malheiros Luzo

The concern to better characterize, guide and evaluate blood donation candidates is universal. In recent years there has been a strong tendency to distribute explanatory material to prospective donors, explaining what donation is, the implications for patients during transfusion and why it is necessary that donors are in optimal health conditions to donate their blood.[1-3] Despite the ceaseless efforts of groups who work with blood collection in Brazil, we still have not attained the minimum rate of collection per capita, that is, 3% of the population. This would provide an adequate supply of blood products in hematology services. A great supply shortage, particularly of packed red blood cells at critical times would not occur. Blood banks have a constant concern to find the ideal profile of the donor with the potential of repeat donations, in order to target campaigns towards this group. The importance of these donors should be stressed, as the rejection rate due to positive serology or high-risk behavior is low.

The study presented in this issue[4] is of paramount importance to characterize first-time blood donors who return and continue as repeat donors in the region of Recife, Brazil. The Blood Center of Pernambuco, Hemope, where the research was conducted, has an important role both in its region, and nationally, due to its concern about quality, which defines how its professionals work.

The results of this work characterize the profile of repeat donors, which will help in marketing campaigns directed at this segment of the population, with the goal of significantly increasing the quality of donations in their service. The results show that 77.1% of donors were male, predominantly between 18-24 years. Donations were spontaneous as well as requested by friends or relatives. A significant proportion had a history of blood donors in the family. The importance of family and friends to encourage individuals to donate has been described in the literature. This study showed that older participants