

6. Wald ER, Kaplan SL, Manson EO, Sabo D, Ross L, Ardit, *et al.* Dexamethasone therapy for children with bacterial meningitis. *Lancet* 1993; 342: 457-461.
7. Lebel MH, Freij BJ, Syrogiannopoulos GA, Chrane DF, Jean HM, Stewart SM, *et al.* Dexamethasone therapy for bacterial meningitis. Results of two double blind trials. *N Eng J Med* 1988; 319: 964-971.
8. Report of Committee of Infectious Diseases of American Academy of Pediatrics. Dexamethasone therapy for bacterial meningitis in infants and children. American Academy of Pediatrics, Elk Grove Village IL, 1997; pp 620-622.

Umbilical Cord Blood Collection With an Infant Feeding Tube

Hospitalized neonates undergo frequent blood sampling and are commonly exposed to transfusions. About 63% of all neonates weighing < 2000 g require at least one red cell transfusion(1). Medical complications associated with blood transfusions include infections, sensitization to blood components and graft versus host disease.

Placental vessels contain a quarter to a third of cord blood at birth(2) which is now being used for stem cell transfusions in Fanconi's anemia, leukemia, thalassemia major, sickle cell anemia and aplastic anemia. The first premature infant who received autologous cord blood transfusion was reported by Ballin *et al.*(2). We report an indigenously developed cord blood collection technique which could have wide applications.

Umbilical cord blood collection was done at the Nowrosjee Wadia Maternity Hospital. Cord blood was collected from ten term infants delivered by elective cesarean section. After delivery of the infant, the cord was clamped at the infant end approximately 5 cm proximal to the umbilicus. The cord was compressed manually

between the thumb and index finger just proximal to the clamp and cut between the clamp and fingers. It was then cannulated with a Fr 10 infant feeding tube to a distance of about 5 cm or more. The other end of the infant feeding tube was connected by a three-way stop cork to a sterile modified blood collection bag(3) containing 25 ml acid citrate dextrose and 1 ml preservative-free heparin. Blood was allowed to flow by gravity into the transfusion bag. On cessation of the flow, blood was aspirated from the placenta with a syringe attached to the three-way stop cork and flushed into the collection bag. When no further blood flow was obtained, the collection bag was disconnected and sealed.

All the ten infants were delivered at term by elective Cesarean section. The mean birth weight was 3 kg (range 2.75 kg - 3.35 kg) and the mean cord blood volume collected was 104.1 ml (range 80 ml-123 ml). Bacteriological studies did not yield any growth in all the ten samples.

Our collection technique differs from those reported by others(1,2,4,5) by being an *in utero* collection of placental blood using an infant feeding tube instead of needles. An infant feeding tube was used to ensure a continuous flow and to prevent accidental pricking of the umbilical vein

and contamination. Blood was collected before delivery of the placenta to take advantage of uterine contractions to squeeze out the blood from the uterus. Two studies(1,4) have reported bacterial contamination in about 10-12% of the collected cord blood samples irrespective of the type of delivery. One of them(1) has reported no significant difference between the frequency of positive blood cultures in Cesarean section and vaginal deliveries. Ballin *et al.*{2) reported no contamination in 120 cord blood collections in vaginal deliveries.

A constant supply of fresh blood is usually not available in most hospitals in our country. Also, the blood available is not screened for hepatitis C, cytomegalovirus, malaria and other infectious disease. Cord blood transfusion, with its high hematocrit, is a simple and cheaper alternative to homologous transfusion, the potential for which is not appreciated. It may obviate the need for blood products in neonates. Cord blood cells can be stored in CPDA-1 media for several weeks(6) without any special storage techniques and no coagulation abnormalities in stored cord blood have been reported(2,5). The use of placental blood for autologous transfusion may be a useful alternative to homologous transfusion if adequate collection and storage techniques can be developed.

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REFERENCES

1. Anderson S, Fangman J, Wager G, Uden D. Retrieval of placental blood from the umbilical vein to determine the volume, sterility and presence of clot formation. *Am J Dis Child* 1992; 146: 36-39.
2. Ballin A, Arbel E, Kenet G, Berar M, Kohilet D, Tanay A, et al. Autologous umbilical cord blood transfusion. *Arch Dis Child* 1995; 73: F181-F183.
3. Parikh PM, Rajadhyaksha S, Sastry PSRK, Sanghvi KP, Kulkarni SS, Mohite M, *et al.* An indigenous closed collection system for umbilical cord blood harvesting. *Indian } Hematol Blood Transf* 1995; 13: 51.
4. Golden SM, O'Brien WF, Lissner C, Cefalo RC, Schumacher H, Stass S. Hematologic and bacteriologic assessment of autologous cord blood for neonatal resuscitation. *J Pediatr* 1980; 97: 810-812.
5. Ballin A, Kenet G, Gutman R. Autologous cord blood transfusion. *Acta Pediatr* 1994; 83: 700-703.
6. Horn S, Mazor D, Zmora E, Meyer SN. Storage induced changes in human newborn erythrocytes. *Transfusion* 1987; 27: 411-414.

Colored and Sweetened Death Trap?

Administration of iron and folic acid tablets to pregnant women to improve the outcome of pregnancy is an important activity of MCH services(1). In the recent

years we have observed an increase in the number of cases admitted for iron poisoning. Whereas we used to see a case of iron poisoning once in 2 or 3 years, for the last 3 years we have come across 12 cases. All the 12 toddlers had consumed an average of 15 tablets each, which were given to their mothers. These tablets were beautifully colored and sugar coated, attracting inquis-