An intraosseous blood transfusion, given at a smaller mission hospital, in a critically ill child

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An intraosseous infusion (IO) is a safe and simple method to administer fluid in an emergency situation and can be used to gain rapid vascular access in a critically ill child. The bone marrow consists of a network of vessels that empties into a central vein and functions as a non-collapsible vein during hypovolemia or shock. Any intravenous fluid, blood products or routine resuscitation drugs can be administered through the IO route. Complications for short-term use are relatively rare compared to the advantages for a child who needs rapid administration of blood or fluid. Fluids and drugs can be infused as well as blood boluses, but very few cases describe the infusion of blood products. In this case study, we report of a successful transfusion of fluid and blood by IO to a 31 months old child, who had suffered severe epistaxis for 12 hours. The child was unconscious at time of admission and the hemoglobin (Hb) level was measured to 3.6 g/dl. Through an IO in the proximal tibia, 300 ml of fluid was first infused, followed by 200 ml of blood. In our case, the child was given the transfusion at a smaller mission hospital without access to advanced technology such as a battery-powered IO driver. It is thus concluded that IO should be placed without delay when venous access is not rapidly obtained.

Biography

Britt Gustafsson has completed her PhD 15 years ago from Karolinska Institutet and has continued her studies in the field of pediatric hematology. She has published more than 60 papers in the field of pediatric hematology. She is a senior pediatric consultant at Center for Allogeneic Stem Cell Transplantation at Karolinska University Hospital. She has also worked as a pediatrician at a smaller mission hospital in Zambia for the last 4 years.

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