Intraosseous transfusion of blood


Abstract:

A 79-year-old woman presented in the postanesthesia care unit with hematemesis following replacement of a jejunostomy tube. Her medical history included recurrent stage IIIC ovarian cancer. The patient rapidly decompensated despite blood products administered through the patient’s implanted medication port. The anesthesia service was consulted for resuscitative support. Examination revealed an alert, hypotensive elderly female in hemorrhagic shock. While peripheral intravenous (IV) access was sought, her condition further deteriorated. Attempts at peripheral access were determined futile and central venous access would be required. An intraosseous (IO) catheter was placed in the proximal medial aspect of the left tibia using the EZ-IO device (Vidacare Corp, San Antonio, Texas). Crystalloid and colloid fluids, blood products, and drugs were administered via the IO route, stabilizing the patient’s condition during the central access procedure. The IO route was used throughout the resuscitative effort. Hemostasis was achieved, and the patient was admitted to the intensive care unit. Intraosseous infusion is a valuable and underutilized technique in managing patients in hemorrhagic shock with poor IV access. Anesthesia providers should seek education and training from those experienced in IO placement techniques and consider use of the IO route early in the resuscitative process.