

INTRA-OSSEOUS LINES IN INFANTS

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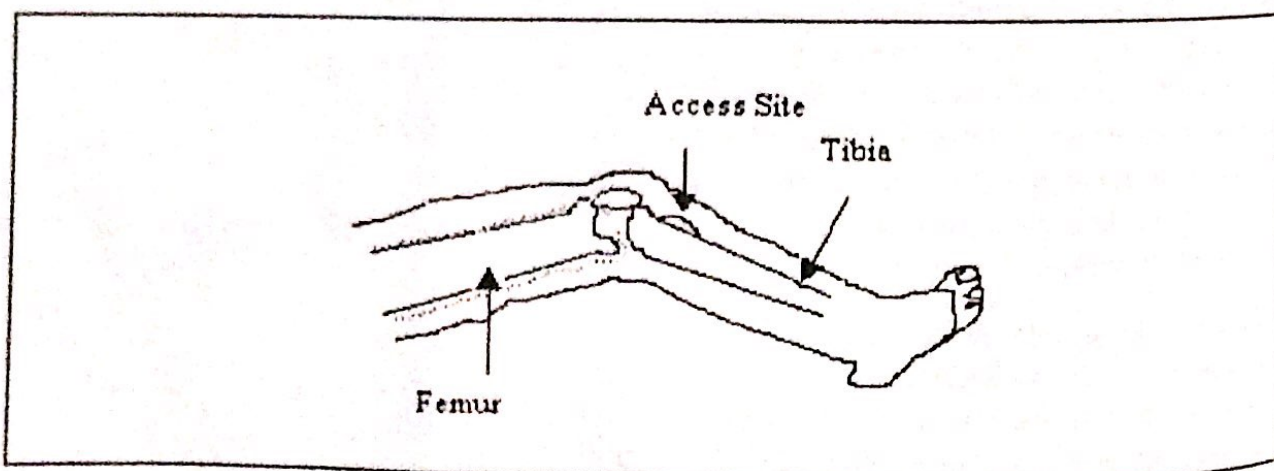
Intra-osseous lines are inserted in infants when IV access is very difficult and drug delivery becomes an emergency in compromised infants. This method has been used since 1043 AD for the resuscitation of infants and neonates. It is considered very easy, simple and safe if done by somebody who knows how to do it. Apart from stat drug delivery, drugs can also be given as a bolus and even infusions can be given easily as good as an intra venous access. This is a temporary procedure and used only in extreme emergencies and has to be replaced by the IFV access as soon as possible. The set for it should be on stand by in any pediatric emergency kit and in the wards and the doctors and paramedical staff should be trained to perform it.

This route is preferred because of the high vascularity and cellularity of the infant and neonatal marrow. There is not much of a different in the pharmacokinetics using this route as compared to the Intra Venous (IV) route.

The time to complete the procedure when all things are available is less than two (2) minutes. Procedure is to use a bone marrow or intra osseous or even a wide bore (16G) hypodermic needle and insert it on the medial side of the proximal tibia about 0.5 to 1.0cm distal to the tibial tubersity in a screwing motion till it gives way. It has to be confirmed by the bone marrow aspiration by attaching a 20 cc syringe to it.

Contraindications for this procedure are not many but should not be done in patients with Osteogenesis Imperfecta, Osteoporosis, Fractures and should not be performed repeatedly.

Various drugs that can be given by this route are adrenaline, Soda-bicarb, Volume expanders, Calcium gluconate, Analgesics, Sedatives, Antibiotics Blood products etc.



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