

LEG AMPUTATION FOLLOWING INTRAOSSEOUS RESUSCITATION IN A 2 YEARS OLD GIRL: A CASE REPORT

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INTRODUCTION:

The intraosseous route is one of the options when standard venous access would delay therapy or is not easily obtained in the hospital or pre-hospital setting^[1]. we report the case of a child who developed an arterial thrombosis after an intraosseous fluid resuscitation complicated with compartment syndrome of leg resulting in limb amputation.

REPORTS:

A 2-year-old girl was presented to district hospital with severe bronchopneumonia complicated with septic shock. Peripheral venous access could not be obtained rapidly and an intraosseous catheter was inserted into the proximal tibia. Fluid resuscitation and intubation were carried out, inotropic support started and subsequently referred to tertiary center which was 93km away and takes about 1½ hour for ventilatory support. At presentation, she was in severe metabolic acidosis. Her right lower limb was mottled, tensed with poor distal circulation. She was diagnosed as compartment syndrome and emergency fasciotomy of leg was carried out. Intraoperatively, the muscles noted to be pale with poor contractility. CT angiography was done post-operatively, showed thrombosis of right peroneal, dorsalis pedis and posterior tibia artery. Heparin infusion was initiated. The limb ischemia was observed for 48hour after fasciotomy. However, on day 5, right below knee amputation was carried out in view of worsening muscle ischemia and ongoing infection.

Figure 1: limb ischemia after intraosseous



Figure 2: post fasciotomy wound



CONCLUSION:

Extravasation is the one of the most severe complications of intraosseous infusion^[2]. In this case, we speculate combination of both compression cause from the fluid extravasation and vasoconstriction from the inotrope tend to contribute to the risk of limb amputation. In conclusion, intraosseous infusion should be limited to emergency resuscitation and immediately discontinued when other peripheral access has been obtained.

REFERENCES:

1. Intraosseous Vascular Access
Peter Dornhofer; Jesse Z. Kellar. June 11, 2022.
2. Spivey WH. Intraosseous infusions. J Pediatr. 1987; 111:639 – 643.