

Treatment of a neonatal peripheral intravenous infiltration/extravasation (PIVIE) injury with Hyaluronidase: a case report.

Matheus van Rens¹, Kevin Hugill², Airene L. V. Francia¹, Abdellatif Hamdy Abdelwahab¹, Krisha L. P. Garcia¹

¹Neonatal Intensive Care Unit, Hamad Medical Corporation, Qatar, ²Nursing Education, Hamad Medical Corporation, Qatar.

Introduction

Intravenous therapy-related injury, its prevention, and treatment are ubiquitous topics of interest among neonatal clinicians and practitioners. This is due to the economic costs, reputational censure, and patients' wellbeing concerns coupled with the possibility of potentially avoidable serious and life-long harm occurring in a patient population.

Case

A term infant receiving a hypertonic dextrose infusion for the management of hypoglycaemia developed a fulminating extravasation shortly after commencement of the infusion. This complication developed without notification or early warning signs. The injury was extensive and treated with a hyaluronidase/saline mix subcutaneously injected into the extravasation site using established techniques. Over a period of 2 weeks, the initially deep wound healed successfully without further incident, and the infant was discharged home without evident cosmetic scarring or functional effects.



Picture 1



Picture 2



Picture 3



Picture 4

Picture 1. Taken at the time of removal of the cannula. Note despite the evident extravasation, the return blood flow from the point of insertion, suggesting the absence of occlusion.

Picture 2. Image showing the peripheral intravenous infiltration/extravasation site 24 hours after hyaluronidase/saline administration. Image shows improving situation, less inflammation, and further reduction in depth of fluid extravasation but some possible ulceration.

Picture 3. Image showing the peripheral intravenous infiltration/extravasation site 6 days after hyaluronidase/saline administration. Image shows healing and residual possible ulceration.

Picture 4. Image showing the peripheral intravenous infiltration/extravasation site 2 weeks after the incident. Image shows healing and residual cosmetic skin mark.

Conclusion

This article reports on a case of a term baby who post routine insertion of a peripherally intravenous catheter showed an extreme reaction to extravasation of the administered intravenous fluids. We discuss the condition, our successful management with hyaluronidase, and the need to remain observationally vigilant of intravenous infusions despite the advances in infusion monitoring technology.