Extraordinary extravasation

Matthew D Zuckerman, Mathew Greenston

A 20-year-old female with a history of coeliac disease presented to the emergency department with painless skin discoloration one day after receiving intravenous infusion (Figure 1).

**Figure 1. Skin discoloration one day following infusion, with marker outline and arrow indicating infusion site**

The patient had received 1 gram iron polymaltose in 500 milliliters of normal saline via right antecubital intravenous catheter for anemia related to her coeliac disease. Immediately following the infusion, arm swelling and coolness of the distal extremity with normal pulses were noted and treated with elevation, observation, and discharge home.

The patient presented to the emergency department the following day because of the skin discoloration, and she was distressed that she was not notified of such a possible complication. Differentiating between discoloration from bruising and iron deposition can be difficult; however, the timing of the symptoms along with the pigmentation were more consistent with iron discoloration. The lesion lacked the dark bluish discoloration typically seen one day after bruising, but was similar to the brownish pigmentation associated with the haem breakdown product bilirubin, seen in older bruises.

Medsafe indicates that iron polymaltose may be administered intravenously or via gluteal intramuscular injection; however, intramuscular injection in arms and exposed areas is not recommended.
Skin discoloration following intravenous and intramuscular administration has been rarely described in the literature and can be expected to persist for 6 months up to several years, occasionally requiring laser therapy.\textsuperscript{1,2} Unfortunately, the patient was lost to follow up.

**Learning points**

- Iron polymaltose can lead to skin discoloration when administered intramuscularly or in the case of intravenous extravasation.
- Patients should be counselled before administration of medications and after adverse events, such as extravasation, regarding potential adverse effects.

**Author information:** Matthew D Zuckerman, Mathew Greenston, Emergency Medicine, Palmerston North Hospital, Palmerston North

**Correspondence:** Dr Matthew D Zuckerman, Emergency Medicine, Palmerston North Hospital, 50 Ruahine Street, Private Bag 11036, Palmerston North 4442, New Zealand. Email: [Matthew.Zuckerman@midcentraldhb.govt.nz](mailto:Matthew.Zuckerman@midcentraldhb.govt.nz)

**References:**