

Inadvertent Extravasations of Norepinephrine

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February 22, 2024

Abstract

A 63-year-old male patient of diabetic ketoacidosis and septic shock was started on norepinephrine infusion following which he developed bulla and subcutaneous tissue ischemia in the event of inadvertent extravasations of norepinephrine. The patient improved after management with mechanical debridement of necrosed tissue and regular dressing of the wound.

Inadvertent Extravasations of Norepinephrine

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Abstract:

A male patient of diabetic ketoacidosis and septic shock was started on norepinephrine infusion following which he developed bulla and subcutaneous tissue ischemia in the event of inadvertent extravasations of norepinephrine. The patient improved after management with mechanical debridement of necrosed tissue and regular dressing of the wound.

Key article message:

The use of higher concentration of norepinephrine via peripheral intravenous route may lead to vasoconstriction and subcutaneous tissue ischemia due to inadvertent extravasations.

Description:

A 63-year-old male presented in emergency with diabetic ketoacidosis and septic shock. He was started on insulin infusion, fluid resuscitation, and antibiotic. Owing to the perceived urgency, norepinephrine infusion (10 ug/min) was initiated for haemodynamic support through a peripheral intravenous line. Following hemodynamic stability, patient developed a large bulla on his right forearm around the peripheral intravenous site [Figure 1]. A diagnosis of subcutaneous tissue ischemia in the event of inadvertent extravasations of norepinephrine was made. Norepinephrine infusion was discontinued immediately. The patient was treated with mechanical debridement of necrosed tissue followed by regular dressing of the wound. The pathophysiology involves relatively higher concentration of norepinephrine in both the recipient vein and adjacent blood vessels following extravasations that lead to vasoconstriction and increased vascular permeability. Treatment of extravasation injuries includes prompt discontinuation of the peripheral intravenous infusion, administration of phentolamine (α-adrenergic antagonist), and debridement of necrosed tissue.

Conflict of interest: None

Consent for Publication of clinical image: Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

