

# Terlipressin induced ischaemia of skin

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## DESCRIPTION

A 47-year-old man presented to the emergency department with haematemesis and melaena for 1 day. He had a 15 year history of heavy alcohol consumption. On examination, he was icteric; spider naevi were seen and ascites was present. Prothrombin time (test) was 16 s against a control of 13.5 s. The platelet count was within normal range. Oesophago-gastro-duodenoscopy was suggestive of actively bleeding oesophageal varices. He was started on terlipressin therapy 1 mg six times a day. On the third day of therapy he developed cold extremities, bilateral erythematous non-blanching lesions of the extremities, ecchymosis, with areas of necrosis of the overlying skin (figure 1). Injection terlipressin was stopped. Lesions regressed over the course of illness and he made a complete recovery in 2 weeks. As a biopsy was not performed and there was a temporal relation between stopping the drip and regression of skin lesion; the most likely diagnosis we kept was terlipressin induced-vasculopathy leading to skin ischaemia. Terlipressin is a synthetic vasopressin analogue used in the treatment of variceal haemorrhage. Its use has increased as it has prolonged half-life, which enables comfortable bolus administration instead of continuous drip. Although it is specific for splanchnic circulation where it exerts a vasoconstrictive effect, similar effect can be seen in systemic

circulation. The side effects are usually mild: headache, abdominal pain, diarrhoea, acral cyanosis, skin pallor, hypertension, arrhythmia (bradycardia) and electrolyte imbalances.<sup>1 2</sup> Uncommon and serious complications are ischaemic colitis, myocardial infarction and skin necrosis.<sup>1 2</sup> In similar previously reported cases including ours, the complication evolved after few days of treatment thus indicating a dose-related effect.<sup>2</sup> Potential predisposing factors of ischaemic complications are: patients with ischaemic disease, obesity, venous insufficiency and spontaneous bacterial peritonitis.

## Learning points

- ▶ Terlipressin should be used with caution in older patients with atherosclerosis, as its ischaemic complications can get precipitated.
- ▶ As ischaemia of skin is a dose-related side effect, its timely recognition can reverse the process.
- ▶ Although rare, the severity of this complication warrants a close watch during terlipressin therapy.



**Figure 1** Ischaemic changes in the bilateral lower leg (right>left).

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## REFERENCES

- 1 Sahu S, Panda K, Patnaik S, *et al.* Terlipressin induced peripheral ischaemic gangrene and skin necrosis. *Trop Gastroenterol* 2010;31:229–30.
- 2 Yefet E, Gershovich M, Farber E, *et al.* Extensive epidermal necrosis due to terlipressin. *Isr Med Assoc J* 2011;13:180–1.

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