

## Skin Necrosis Caused by Flunitrazepam Abuse

Sir,

In the past few years several reports of pathologies due to misuse of temazepam, both intravenous and intra-arterial, have been published (1–3).

We describe here a case of skin necrosis caused by intravenous injection of 30 ml flunitrazepam (Darkene, Bayropharm, drops 0.2%), a drug devoid of the well-known euphoriant effect of temazepam. A 35-year-old man was admitted to our first aid department for an ulcerous, painless lesion that was located on the antero-lateral aspect of his right leg. The lesion, which was 3.5 cm in diameter, had developed about 10 days earlier. The borders appeared slightly erythematous with a discharge which was not frankly purulent, surrounding a necrotic central mass (Fig. 1). Several cicatricial lesions of 1–3 cm diameter were observed around the ulcerous area. Numerous other scars were scattered on his legs and thighs. The superior



Fig. 1. Ulcerous area with necrotic central mass and several cicatricial lesions.

limbs were not marked. Furthermore, a perimalleolar bilateral swelling was evident. Popliteal, posterior tibial and foot-dorsal pulses were palpable.

The patient, a drug addict, often overindulged in benzodiazepines. He did not take any other drugs. He worked as a barman and was searching for a vein on an unexposed area, which explains the absence of lesions on his upper limbs. He claimed he often could not find the vein and the drug overflowed into surrounding tissues. He was HIV-positive and HCV-positive; laboratory tests showed thrombocytopenia and lymphopenia without a CD4/CD8 inverted ratio. His CPK serum level was normal and urinary myoglobin was absent. A lesional cutaneous swab tested positive for *Staphylococcus aureus*.

The lesion healed over after some weeks, following simple cleansing and topical antibiotic therapy. This case, though mild, is similar to those due to misuse of temazepam intravenous injection previously described by Blair et al. (4). In these reports the extent of cutaneous necrosis was wider and muscular involvement was constant. The pathogenetic hypothesis was based on thrombosis related both to temazepam and hyperviscosity of gel formulation. Other effects due to abuse of intravenous and intra-arterial temazepam are well documented (1–3), i.e. death from pulmonary microembolization and rhabdomyolysis, and partial or complete amputation of the limbs. In the case described here an ischaemia of the dermic microvasculature with subsequent bacterial superinfection is thought to be the most likely pathogenetic mechanism. No complications related to misuse of temazepam have previously been described in Italy. Flunitrazepam is sold on unrepeatable prescription, its cost is low and it is strongly desired by drug abusers. Doctors thus try to avoid prescribing flunitrazepam because they are aware of the illegal market for this drug.

### REFERENCES

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