Bilateral Septic Lower Limb Ulceration Following Drug Abuse

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Citation

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Abstract

Limb ulceration is a common finding amongst intravenous drug abusers especially in urban settings. The authors present a case of severe neglected bilateral lower limb ulceration in such a patient. Theories regarding the mechanism of this ulceration are explained.

INTRODUCTION

Emergency Departments have to deal with many of the problems associated with drug abuse. Among the many cutaneous manifestations of drug abuse[1], septic ulceration can be an acute presentation.

CASE REPORT

A 41 year old intravenous drug abuser presented unwell with infected ulceration of his legs in the distribution of the long saphenous vein (Figure 1). He reported both intravenous and subcutaneous injections of methadone syrup in addition to heroin, speed and crack.

Figure 1

Figure 1: Bilateral leg ulceration 2 days post admission



Figure 2

Figure 2: Close-up of ulcerations



The ulceration had been present for a number of months and had been treated with a variety of non-conventional dressings including toilet paper. He had previously attended for surgical drainage of injection site abscesses and had required a right below elbow amputation following inadvertent intra-arterial injection of temezapam gel. On examination, he was unwell with a pyrexia of 38.8oC and a tachycardia of 100 bpm. There were deep linear ulcers with irregular necrotic borders on each leg associated with a purulent discharge, an offensive smell and surrounding cellulitis. There was also extensive lipodermatosclerosis of the lower legs and multiple hyperpigmented scars at previous injection sites. Laboratory investigations revealed a white cell count of 32.8 x 109/l and a C reactive protein of 290. He was admitted for antibiotics and wound care. Initial wound swabs grew Staphylococcus aureus and Group A Streptococcus but blood cultures were negative. Duplex ultrasound of his legs excluded deep venous thrombosis. He was discharged 1 week later and his ulcers have continued to improve as an outpatient with attention to wound care and the avoidance of the legs as an injection site.

DISCUSSION

Many drug abusers, like this patient, only resort to the lower limbs once the intravenous route (“mainlining”) of the upper limbs has been exhausted. The common sites for intravenous injection are the dorsal venous arch of the foot and the long saphenous vein at the medial malleolus[2]. Alternatively, subcutaneous injections (“skin popping”) can be attempted and these are usually characterised by indurated hyperpigmented scars1. A number of factors are responsible for the extensive ulceration seen in this patient. This includes the multiple non-sterile injections of drugs mixed with irritant adulterants at skin sites commonly harbouring Staphylococcus species. It is possible that repeated veno-puncture resulted in acute thrombophlebitis in the distribution of the long saphenous vein while surrounding peri-venous and subcutaneous injections caused considerable tissue destruction, cellulitis and abscess formation. This may have been the initiating factor for ulceration[3]. The ulceration may be compounded by venous insufficiency which is more prevalent amongst drug abusers and lymphatic destruction and lymphoedema secondary to the sclerosing effects of multiple injections leading to a puffy foot syndrome2.

It is important that drug abusers with infected ulceration seek early medical attention for appropriate antibiotics and wound care to reduce the consequent risks of bacteraemia and septicaemia.

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