

Necrotising Sweet Syndrome and A Cement Burn

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Introduction

Necrotising Sweet Syndrome is a new variant of neutrophilic dermatosis, characterized by rapid onset of progressive erythematous, warm, oedematous cutaneous lesions with deep tissue neutrophilic infiltration and soft tissue necrosis, in the absence of infectious cause. To date, three cases of Necrotising Sweet Syndrome have been reported in association to immunosuppression from haematological malignancies; however, no cases have been described concerning burn injury.

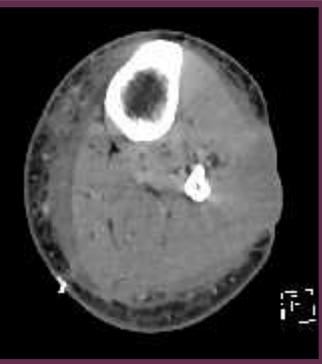


Figure 1. CT scan of the left leg following 1st debridement and fasciotomy of the anterior and lateral compartments.



Figure 2. Fasciotomy of the left leg on the 8th recurrent episode, revealing purulent materials.

Case study

A 35 years old man who works as a concreter, presented two days following a cement-lime burn of less than 0.5% of total body surface area to his left leg, with clinical findings and imaging features consistent with necrotising fasciitis.

He received treatments by the guideline for necrotising fasciitis, including intravenous antibiotics and surgical debridement (Fig. 1).

However, in the next ten months, he developed nine recurrent episodes associated with fever and elevated inflammatory markers; leading to fasciotomy (Fig. 2), multiple surgical debridement, application of Integra, and split thickness skin grafts (Fig. 3) in addition to intravenous antibiotics.

Each time, microbiology culture, including fungal and mycobacterial, did not show any growth. A diagnosis of Necrotising Sweet Syndrome was finally made based on clinical and histological findings.

Conclusion

Neutrophilic dermatosis can be triggered by burn injury and is an important differential diagnosis in infective presentation post burn injury. Tissue biopsy, tissue culture, and dermatology opinion should be sought early in suspected cases.

References

1. Kroshinki D et al. JAAD 67(5):945-54.
2. Villareal-Villareal CD et al. Actas Dermosifiliogr 107(5):369-78.
3. Rosmaninho A et al. Eur Med J 2:77-85.
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Figure 3. Debridement of the left leg on the 9th recurrent episode, application of Integra, split-thickness skin graft repair, and at 3-months follow up. (Top to bottom)