

ACUTE FEBRILE NEUTROPHILIC DERMATOSIS

A BITTERSWEET PILL TO SWALLOW?

Rashes on the legs have many causes and can present a diagnostic challenge to the clinician. Diagnosis requires a detailed history, examination and occasionally further tests or investigations. A case is presented of a bilateral rash on both legs in an elderly female podiatry patient with peripheral vascular disease.

CASE REPORT

A 79-year-old female ex-smoker attended for a podiatry redressing appointment of the amputation site – her right hallux had been surgically removed in April 2015. At this time she mentioned she had developed a red blotchiness over both tibiae within the last 24 hours. She reported no itching or other symptoms related to the lesions and reported she felt generally well in herself.

Her medical details revealed a history of hypertension and peripheral vascular disease, culminating in a popliteal and femoral angioplasty with stenting in her right leg in March 2015 following an angiogram. Her right hallux was amputated a month later due to complications.

The patient was taking the following prescribed medication:

- Clopidogrel 75mg OD
- Omeprazole 20mg OD
- Atorvastatin 40mg OD
- Propanolol 80mg OD
- Aspirin 75mg OD
- Amlodipine 10mg OD
- Paracetamol 500mg PRN
- Tramadol 50mg PRN

The patient also admitted that she had taken dihydrocodeine in the last 48 hours.

A non-blanching erythemic rash was present on both tibiae (Figures 1 & 2) and around the malleoli, which had started 24 hours earlier as a macular eruption coalescing to form larger lesions which latterly became slightly elevated and tender. There was no reported itching or history of other skin disorders.

Podiatrically, palpation of foot pulses was difficult – only monophasic pedal pulses were detected using Doppler. No neurological deficit was evident on sensory testing of the feet. The amputation site at the first metatarsophalangeal joint was healing and showed no signs of infection (Figure 3). A blood



TESSA GOLDBLATT
MCHS, ADVANCED
SPECIALIST
PODIATRIST, ROYAL
FREE LONDON NHS
FOUNDATION TRUST



IVAN BRISTOW
MCHS, UNIVERSITY
OF SOUTHAMPTON

screen was undertaken and revealed an elevated C-reactive protein and high neutrophil count. Consequently, the patient was referred to dermatology for further assessment whereupon a 4mm punch biopsy was taken from the leg lesions.

The biopsy report reported a neutrophilic dermal infiltrate with red blood cell extravasation and leucocytosis but there was no evidence of a vasculitic process. The epidermis showed little spongiosis associated with upper dermal oedema and occasional necrotic keratinocytes. The overall impression was that of neutrophilic dermatitis (Sweet's Syndrome), with a suspected drug aetiology based on the patient assessment.

ACUTE FEBRILE NEUTROPHILIC DERMATOSIS (SWEET'S SYNDROME)

Sweet's syndrome (SS) is a rare skin disorder characterised by the abrupt development of tender, red papules and nodules that coalesce to form plaques. First described by Robert Sweet in 1964,¹ the condition occurs more commonly in females than males (4:1), typically in the 20-40 age group, but can occur at any age. The disease can erupt anywhere on the skin but the face, arms and neck are most often affected. The condition may be accompanied by lethargy, fever, arthralgia, conjunctivitis or mouth ulcers.

The condition appears to be a cytokine mediated hypersensitivity usually to an infection or ingested drug, although it has been reported to occur as a manifestation of systemic diseases such as rheumatoid arthritis and inflammatory bowel disease. Less commonly, it can be observed due to sun exposure, pregnancy and those with internal malignancies.

The diagnosis is made by biopsy and with accompanying blood tests, which typically demonstrate a high neutrophil count. Where an underlying cause is not identified further tests such as X-rays or CT scans may be helpful. Exclusion of suspect medications may also be implemented but in around 50% of cases no underlying cause can be found.

Figures 1 & 2:
Lesions on the leg

Figure 3:
Amputation site



Figure 1



Figure 2



Figure 3

TREATMENT

If the underlying cause can be eliminated, in most cases the condition will rapidly clear although some cases clear spontaneously with no intervention. However, when this is not possible topical or oral steroids can improve the skin condition. Alternatively, drugs such as colchicine, dapsone and indomethacin can be effective. Occasionally, immune-suppressive drugs can also be used (i.e. cyclosporine).

CASE OUTCOME

Presentation of the condition in this patient was a little unusual in that the lesions were not markedly raised at presentation and there were none of the accompanying features such as fever, arthralgia or mouth ulcers. However, rapid onset of the condition, as in this case, lends suspicion to a drug-related reaction. A blood test and skin biopsy informed the diagnosis. This was confirmed when withdrawal from dihydrocodeine led to a rapid resolution of the condition. It became apparent that this drug had been obtained, not on prescription, but from a 'helpful' friend.

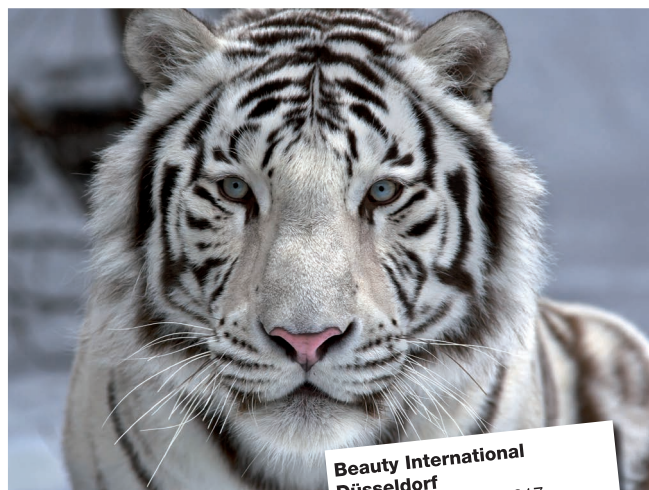
This case illustrates the need for a proper history and disclosure from the patient of their self-prescribing activities. Had the condition not resolved by drug exclusion, other causes would have needed to be explored as those suggested above. ■

REFERENCES

1. Sweet RD, An acute febrile neutrophilic dermatosis. *Br J Dermatol* 1964; 76: 349–356

FURTHER READING

1. Villarreal-Villarreal CD, Ocampo-Candiani J, Villarreal-Martinez A, Sweet Syndrome: A Review and update. *Actas Dermosifiliogr* 2016; 107(5): 369–378



**Beauty International
Düsseldorf**
March 31 – April 2, 2017
Podiatry · Hall 09 · Stand G25
Naildesign · Hall 12 · Stand E52

KERA

... the new range of ceramic cutters stands out through more than just its aesthetic appearance.

Excellent fracture toughness and hardness, additional bio-compatibility and the lower weight are interesting features of these new medical devices. Proven BUSCH cuts ensure that treatment with the 9-part KERA range produces exactly the desired result.

We and our retail partners will be pleased to advise you.
From specialists for specialists.



Busch®

There is no substitute for quality

BUSCH & CO. GmbH

Unteraltenbach 17-27
51766 Engelskirchen
GERMANY
Telefon +49 2263 86-0
Telefax +49 2263 20741
mail@busch.eu
www.busch.eu

