Blistering Eruption Following a Rubefacient Rub for Shoulder Discomfort

Dear Editor,

A 96-year-old woman was referred as an emergency with a suspected allergic reaction to Deep Heat® rub (Mentholatum Company Ltd, East Kilbride, Scotland). Five days before referral, she developed pain and stiffness of her left neck and shoulder. Because of this discomfort, assumed to be muscular, she started applying an over-the-counter rubefacient,[1] called Deep Heat® rub (active constituents: menthol, eucalyptus oil, methyl salicylate, turpentine oil), and 2 days later, she felt a different painful burning sensation. This was associated with the appearance of confluent redness and swelling, with multiple small blisters, over the treated area. At her general practice surgery, she was treated with silver sulfadiazine (Flamazine®, Smith & Nephew, Hull, UK) cream and Mepilex® (Mölnlycke Health Care, Sweden) dressings but her blistering eruption continued to get worse. Thereafter she was prescribed oral flucloxacillin and cetirizine, but still with no improvement and so she was referred to us.

On examination, she had grouped and clear fluid-filled tense bullae on an erythematous base within a well demarcated distribution on the left shoulder and neck (fig. 1). Our clinical diagnosis of herpes zoster was subsequently confirmed on viral swab of vesicle fluid which showed, on polymerase chain reaction (PCR) testing, varicella virus. She was treated with oral aciclovir 800 mg five times a day for a week. Flucloxacillin 500 mg four times a day was also continued in case of secondary bacterial infection. Within a week, the herpes zoster discomfort had resolved and the eruption was clearing.

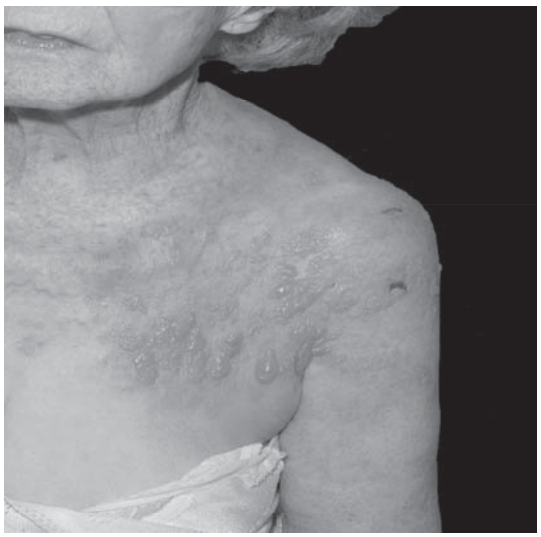

Fig 1. Grouped clear fluid unilocular tense bullae on an erythematous base within a dermatomal distribution C5-T2.

Herpes zoster often presents with a prodrome of pain, which may be associated with pruritus, paraesthesia or hyperaesthesia along one or more dermatomes. This symptomatic prodrome may last approximately 3 to 5 days,[2] before any skin signs appear. Prodromal symptoms of herpes zoster have simulated cardiac chest pain,[3] headache due to carotid artery dissection[4] or abdominal visceral pain, amongst other conditions.

Herpes zoster being mistaken for a contact reaction to a topical treatment used for the prodromal discomfort is probably not uncommon. Nevertheless, we cannot find any published reports of this presentation, and we hope that reporting this will be of educational value particularly to trainees in dermatology, and to non-dermatologists.

Diagnosis of herpes zoster in the absence of rash is not always possible. Two coexistent diagnoses are not impossible. Could our patient have had contact allergic dermatitis to Deep Heat® rub as well as herpes zoster? This is unlikely. Although on first impression, her eruption could be mistaken for a dermatitis, several features argue against this possibility. These features include the pain and burning sensation without itch, the unilocular bullae (and not the characteristic multiloculated bullae of a dermatitis) and that grouped bullae remained within a dermatomal distribution (with no spread around as would be expected if a contact dermatitis). Also, as the eruption settled it was not accompanied by the epidermal changes (particularly as shown by scaling) that would have been expected had there been a dermatitis. Patch test is generally effective to diagnose contact dermatitis.

We used oral aciclovir for this patient, but in the hope, rather than expectation, that it would shorten the duration of her symptoms. In reality, it was probably too late for this to have any useful effect, which is why it is usually only recommended within 72 hours of onset of herpes zoster.[5] Her stiff and painful shoulder and neck were initially not recognised to be herpes zoster. If her eruption had been

diagnosed earlier, rather than assumed to be a contact (possibly allergic) reaction with secondary infection, she could have started appropriate treatment sooner, so increasing the likelihood of it being effective in shortening the duration of discomfort and reducing the risk of late complications.

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