An urticated skin rash

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A man presents with urticarial patches on his trunk and limbs. What are these lesions and how should they be treated?

Over a three-month period, a 57-year-old man developed pruritic urticarial patches over his trunk and limbs (Figure 1). The individual lesions would persist for days to weeks and often coalesced to form plaques. Skin biopsy showed an epidermis that was covered by a loose stratum corneum. There was focal separation of keratinocytes (spongiosis), and the upper dermis showed a perivascular interstitial infiltrate of lymphocytes as well as numerous eosinophils. An early subepidermal cleft was visible (Figure 2).

Differential diagnosis

Urticarial lesions can be due to a number of processes.

- **Urticaria** produces lesions that are usually transitory and last from minutes to hours. The lesions often extend to produce annular wheals. Angioedema may be seen. Skin biopsy shows scant superficial and deep perivascular lymphocytes with scattered eosinophils. The epidermis is spared any changes.
- **Papular urticaria** presents as small urticated papules that are intensely itchy. The papules often have a central small vesicle that is readily excoriated. Individual lesions may last from days to weeks. Insect bites are the most common cause. Skin biopsy shows a central intraepidermal vesicle, and the underlying superficial and deep dermis has lymphocytic inflammation with eosinophils.
- **Urticarial vasculitis** produces urticarial patches particularly on the limbs and trunk. The individual lesions last over 24 hours. They are sometimes associated with a burning itch. There may be a subtle purpuric element. Lupus erythematosus may be evident. Skin biopsy shows perivascular mixed inflammation with focal fibrinoid vascular necrosis and leucocyte breakdown (leucocytoclasis).
- **Urticarial dermatitis** is the correct diagnosis in this case. It is associated with primarily dermal lesions causing urticated plaques and papules. Individual lesions may last for days or weeks. The biopsy shows focal epidermal spongiosis and superficial inflammation with lymphocytes and eosinophils.

Urticarial dermatitis may be produced by contact allergic reactions, drug reactions, infestation or bullous pemphigoid. In this case, the subepidermal cleft was a major clue for bullous pemphigoid. Immunofluorescence showed linear deposition of immunoglobulin and complement at the basement membrane zone – in the pattern of bullous pemphigoid.

Treatment

Bullous pemphigoid is treated with moderate doses of oral corticosteroids, but it may require additional immunosuppressive

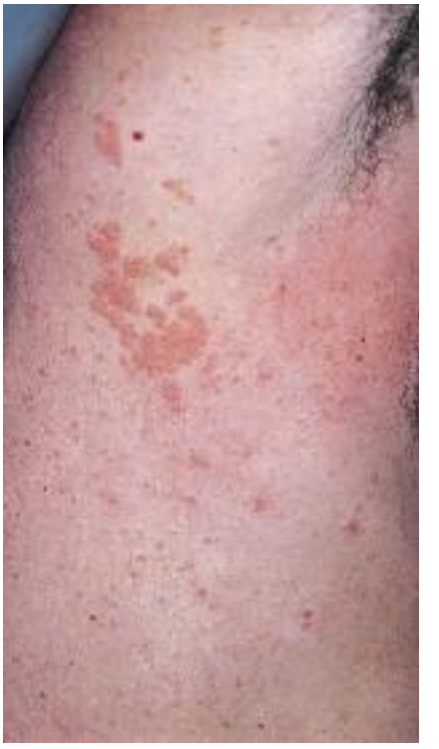

Figure 1. Urticated papules and plaques over the side of the patient's trunk.

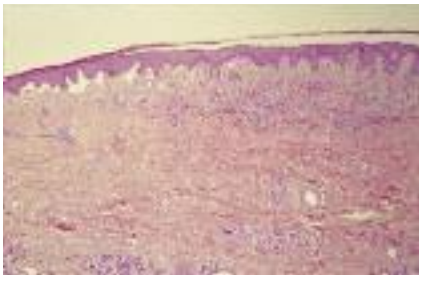

Figure 2. Skin biopsy showing focal epidermal spongiosis, prominent upper dermal lymphocytes with eosinophils, and an early subepidermal cleft.

Keypoint

Clinical history and biopsy findings provide important clues in the differential diagnosis of urticated skin lesions. MT

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