

Sudden Flagellate Rash after Barbecue

A 40-year-old Malay gentleman presented to the dermatology clinic after an abrupt onset of an itchy rash over his trunk 2 days after attending a barbecue session. The patient reported having eaten seafood and some lightly grilled shiitake mushrooms.

The patient was treated for dermographic urticaria by his primary care physician with antihistamines. He otherwise denied trauma, sea-bathing, prior consumption of other drugs, complementary medication or excessive sun exposure. He had no known food or drug allergies.

Physical examination revealed non-tender, whiplash-like erythematous streaks on the patient's trunk, arms and thighs (Fig. 1), sparing the mid-back. Mucosal abnormalities, fever and other systemic symptoms were absent.

Based on the patient's history and physical examination, which one of the following is the most likely diagnosis?

- A. Bleomycin-induced erythema
- B. Dermatomyositis-associated centripetal erythema
- C. Shiitake dermatitis
- D. Adult onset Still's disease
- E. Contact dermatitis to plant or jellyfish

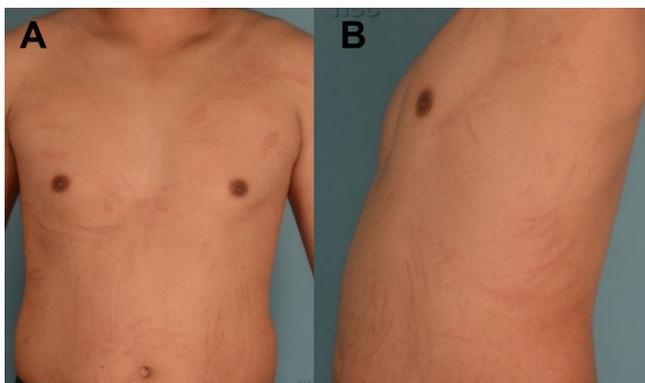


Fig. 1. Flagellate dermatitis on the trunk: A) Front view B) Side view.

Discussion

Based on the characteristic clinical findings and food exposure history, the diagnosis of shiitake flagellate dermatitis was made.

Shiitake dermatitis typically manifests, about 48 hours after consumption of poorly cooked shiitake mushrooms, as widespread linear erythematous papules and plaques.¹ Linear grouping of these papules is the result of scratching and Koebner phenomenon, paralleling the marks from the Middle Ages practice of self-flagellation. Marked pruritus is a common complaint as well. Hence, the distribution of the rash typically occurs at areas accessible to scratching. Spontaneous resolution of the skin symptoms usually occurs within a few days to several weeks.

In shiitake dermatitis, it is postulated that a toxic reaction, involving the thermolabile polysaccharide lentinan found in the mushroom is responsible.² Thus, the reaction can be avoided by ensuring that the mushrooms are well cooked. However, the precise pathogenesis of shiitake dermatitis is not yet fully understood.

Flagellate erythema can occur in other instances.³ They can be differentiated based on clinical history and appearance: Bleomycin-induced flagellate erythema typically occurs 1 to 9 days after administration of bleomycin, appearing as hyperpigmented streaks. In contrast to shiitake dermatitis, post-inflammatory hyperpigmentation and involvement of the mucous membranes are common features, while itching is rare. History of recent use of this drug or its derivatives should raise suspicion of this aetiology.

Dermatomyositis-associated flagellate erythema occurs rarely in patients with dermatomyositis. It has a centripetal linear appearance, which correlates with the disease severity. Pruritus or pain is usually present without hyperpigmentation.

The salmon-coloured cutaneous eruption of adult onset Still's disease is part of the presenting triad of fever, arthralgia and a rash. It is typically non-pruritic and its appearance mirrors the fever spikes, occurring predominantly on the trunk and extremities.

Answer: C

Plant contact dermatitis can manifest as allergic, urticarial, irritant and a phytophotodermatitis. A linear but asymmetrical distribution of the rash is suggestive in the context of plant exposure or recent outdoor activity can be suggestive.

Jellyfish dermatitis usually presents as an immediate painful vesicopapular eruption along the distribution of the sting. Severe systemic symptoms such as loss of consciousness may ensue.

There are no specific laboratory or histopathological findings for this condition. The diagnosis is made through typical skin lesions and a characteristic history. Skin biopsy is not pathognomonic and shows a spongiotic dermatitis with lymphocytic infiltrates, eosinophils and dermal oedema.

Conclusion

Shiitake dermatitis is typically self-limiting; symptomatic treatment with topical steroids and antihistamines is the mainstay. In severe cases, oral steroids can be considered. Most importantly, patients have to be advised to ensure that the mushrooms they consume are adequately cooked to prevent future occurrence.

REFERENCES

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