

Shiitake dermatitis

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A previously healthy 37-year-old man presented with a 12-hour history of an intensely pruritic papular eruption arranged in a linear or “flagellate” pattern over his trunk, limbs, forehead and scalp (Figure 1 and Appendix 1, available at www.cmaj.ca/lookup/suppl/doi:10.1503/cmaj.160644/-/DC1). He had no mucosal lesions or dermographism and no systemic symptoms such as fever, malaise, weight loss, arthralgia or myalgia. He had not taken medications, had no history of skin trauma and could not recall contact with plants or arthropods. The patient reported eating shiitake mushrooms 48 hours earlier and had had a similar but more serious episode seven years earlier after eating shiitake mushrooms. We diagnosed shiitake dermatitis and prescribed oral desloratadine and betamethasone dipropionate 0.5% cream. The rash resolved within one week with no hyperpigmentation.

Shiitake dermatitis can occur 12–60 hours after ingestion of raw or incompletely cooked shiitake mushrooms (*Lentinula edodes*).¹ The flagellate rash is characterized by multiple linear pruritic papules over the trunk and extremities.^{1,2} Sun exposure may aggravate the rash.¹ Histologic features are nonspecific, showing spongiosis, papillary dermis edema and perivascular inflammatory infiltrate, but no vasculitis.^{1,2} The differential diagnosis includes bleomycin therapy, dermatomyositis and adult-onset Still disease.^{2,3} The pathogenesis of shiitake dermatitis remains unclear. Koebnerization is unlikely because scratching usually does not reproduce the rash.³ Case reports have described positive skin-prick or patch test reactions to shiitake mushrooms, which suggests an allergic reaction, but the condition is more likely a direct toxic reaction to lentinan, an inflammatory polysaccharide found in shiitake mushrooms that is broken down by heat.^{3,4} Shiitake dermatitis is self-limited and requires only symptomatic treatment with antihistamines and topical or oral corticosteroids.¹ Fully cooking shiitake mushrooms usually prevents recurrence.¹

References

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Figure 1: Erythematous linear papules distributed symmetrically over the back of a 37-year-old man with shiitake dermatitis.

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