

# Acute Painful Rash on the Cheek

Xueyan Yao, MD; Jianzhong Zhang, MD; Cheng Zhou, MD

## Eligible for 1 MOC SA Credit From the ABD

This Photo Challenge in our print edition is eligible for 1 self-assessment credit for Maintenance of Certification from the American Board of Dermatology (ABD). After completing this activity, diplomates can visit the ABD website (<http://www.abderm.org>) to self-report the credits under the activity title "Cutis Photo Challenge." You may report the credit after each activity is completed or after accumulating multiple credits.



A 31-year-old woman presented to an outpatient dermatology department with acute pruritus, burning, and moderate swelling of the left cheek of 10 minutes' duration that occurred while waiting to see a hematologist in the same building. The patient was diagnosed with aplastic anemia 11 years prior and was awaiting bone marrow transplantation. Physical examination showed an edematous erythematous wheal with a relatively distinct border measuring 3 cm in diameter. No foreign material could be identified on the surface with the naked eye. Dermoscopy was performed.

## WHAT'S THE DIAGNOSIS?

- acute contact dermatitis
- acute herpes simplex
- acute Sweet syndrome
- acute urticaria
- insect bites

PLEASE TURN TO **PAGE 88** FOR THE DIAGNOSIS

From the Department of Dermatology, Peking University People's Hospital, Beijing, China.

The authors report no conflict of interest.

Correspondence: Cheng Zhou, MD, Department of Dermatology, Peking University People's Hospital, No.11 Xizhimen South St, Beijing 100044, China ([chengzhou@live.cn](mailto:chengzhou@live.cn)).

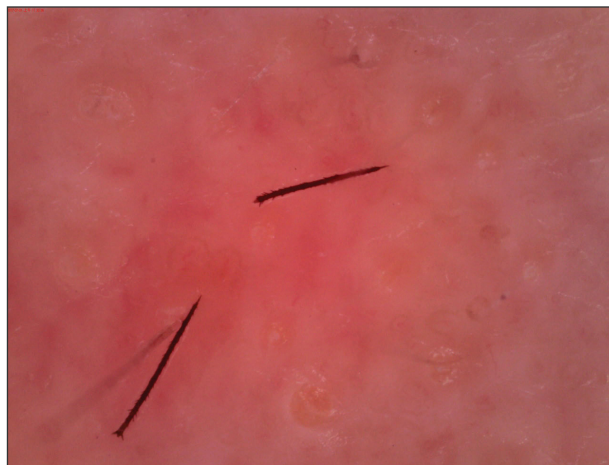
## THE DIAGNOSIS: Acute Contact Dermatitis

Dermoscopy demonstrated caterpillar hairs (Figure) and established the diagnosis of acute contact dermatitis due to a caterpillar. Upon further questioning, the patient recalled that something dustlike fell on the left cheek as she walked under some trees. The clinical and dermoscopic findings suggested a diagnosis of caterpillar dermatitis (family Limacodidae or Lymantriinae, order Lepidoptera). During the life cycle from young larvae to mature larvae, the quantities of the toxic thorns and hairs increase from 60,000 to 80,000 to 2,000,000 to 3,000,000. The toxic hairs measure 0.5 to 2.0 mm in length. They drop from the mature larvae's skin during desquamation as well as from the cocoon during maturation to a moth. The hairs appear tubular and arrowlike with terminal spines.<sup>1</sup> The larvae are called "the fiery hot" in Chinese, which vividly describes the swelling and sensation of burning with immediate contact.

Eruption severity and distribution depend on exposure modality and intensity. Exposed body parts, including the face, neck, forearms, interdigital spaces, and dorsal aspects of the hands, most commonly are involved. The eruption can be immediate or delayed, occurring hours or even days after the first contact.<sup>2</sup> Itching is intense and continuous, with intermittent worsening. Clinically, the eruption manifests with rose to bright red, round macules and papules. Although rare, skin manifestations can be accompanied by systemic symptoms, such as malaise, fever, and anaphylaxis syndrome.<sup>3</sup> The cutaneous lesions may last for 3 to 4 days and subside, leaving a brownish macule.<sup>1,4</sup>

The differential diagnosis includes acute herpes simplex, which presents as grouped vesicles on an erythematous base with itching or burning, and recurrences in the same location are common. Acute Sweet syndrome may appear as erythematous or edematous painful plaques with fever and neutrophilia. Acute urticaria appears as wheals with severe pruritus, and individual lesions can resolve within several hours. Insect bites often appear as itching or painful erythema or papules.

We sterilized the lesion with alcohol, removed the thorns as much as possible with ophthalmic forceps



Dermoscopy showed 2 black thorns on a red background. Several dilated vessels can be observed. The thorns were approximately 0.4- to 0.5-mm long and 0.015 mm in diameter, a similar size to the vellus hairs and pores on the face (original magnification  $\times 220$ ).

under the guidance of dermoscopy, and prescribed chloramphenicol ointment 1% twice daily. Our patient was completely cured within 24 hours with no systemic symptoms or pigmentation.

This case directly showed a novel usage of dermoscopy in diagnosis and therapy, especially in acute contact dermatitis. Small irritants such as caterpillar thorns and hairs easily can be observed and removed by dermoscopy devices with higher magnification.

### REFERENCES

1. Fangan H, Yun H, Yuhua G, et al. Observations on the pathogenicity of *Lepidoptera*, *Euileidae* caterpillar and the clinical pathological pictures of patients with dermatitis. *Chinese J Zoonoses*. 2005;21:414-416.
2. Bonamonte D, Foti C, Vestita M, et al. Skin reactions to pine processionary caterpillar *Thaumetopoea pityocampa* Schiff. *ScientificWorldJournal*. 2013;2013:867431.
3. Burns T, Breathnach S, Cox N, et al, eds. *Rook's Textbook of Dermatology*. 8th ed. Vol 2. Oxford, United Kingdom: Blackwell; 2010.
4. Henwood BP, MacDonald DM. Caterpillar dermatitis. *Clin Exp Dermatol*. 1983;8:77-93.