

## Erythematous rash on face

The patient initially thought the rash was an eczema flare-up and applied a steroid cream. But the rash worsened and spread.

A 27-year-old Caucasian woman came into our clinic with an erythematous, papulopustular rash on her face. The small papules and pustules formed a confluence around her mouth and on her chin; the vermillion border was spared (FIGURE). The patient said that the rash started as a dry scaly patch on the corner of her mouth, and it spread over the course of a few weeks.

The patient had a history of eczema for

which she used mometasone furoate cream. Initially, she thought the rash was a flare-up of her eczema, so she used her steroid cream. After using the cream on her face for a month, the patient reported that the rash continued to worsen and spread. She said that the rash was mildly itchy and that when she opened her mouth, it was moderately painful.

○ WHAT IS YOUR DIAGNOSIS?

### FIGURE

#### Patient confused rash with eczema flare



PHOTO COURTESY OF JEFFREY HECK, MD

The rash on this 27-year-old patient's face started as a dry, scaly patch on the corner of her mouth and spread into the pattern shown above. The rash spared the vermillion border.

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**> If left untreated, perioral dermatitis rarely resolves on its own.**

**Diagnosis: Perioral dermatitis**

Perioral dermatitis occurs in men and women of all ages and races, though it is more common in women between the ages of 16 and 45.<sup>1,2</sup> Many agents have been implicated in the etiology of perioral dermatitis, including infectious pathogens, hormonal factors, and steroids. Moisturizing creams and cosmetics, such as foundation and blush, can cause occlusion of skin follicles, leading to proliferation of skin flora and the resultant papulopustular rash seen in perioral dermatitis.<sup>3</sup>

In a similar manner, fluorinated corticosteroids enable opportunistic fusobacteria to become pathogenic, leading to the condition. Other risk factors include premenstrual hormone changes, pregnancy, and the use of oral contraceptives, fluorinated toothpaste, inhaled steroids, or glucocorticoids.<sup>4</sup>

**It's easy to distinguish from these 3 conditions**

The differential diagnosis includes contact dermatitis, atopic dermatitis, and rosacea.

- **Contact dermatitis** is similar to perioral dermatitis in that the patient may indicate that she started using a new skin product. In most cases, the pruritus associated with contact dermatitis will aid in differentiating the 2 diagnoses.
- **Atopic dermatitis** is more common in children and rarely has an adult onset. Often, there is a personal or family history of asthma or allergies. Distribution in adults is more typically on flexure surfaces, hands, and upper eyelids, and it is itchier than perioral dermatitis.
- **Rosacea** is often associated with flushing, and is exacerbated by the ingestion of hot food and drinks, alcohol (red wine), and exposure to sun. The distribution is typically on the forehead, cheeks, nose, and around the eyes—rather than around the mouth.

**A rash that's painful and mildly itchy**

Perioral dermatitis has distinct clinical features that distinguish it from other facial dermatoses. The rash is classically described as tiny, dry, erythematous papulopustules in a pattern around the mouth, nasolabial

folds, and chin, with sparing of the vermilion border.<sup>1,2</sup> The clinical course is variable, but is often chronic, with flares. Typically, the rash is only mildly pruritic, but a burning or painful sensation is common. Intolerance to sunlight, drying agents (such as soaps), or irritants (such as cosmetics) is also common.<sup>3</sup>

**Treatment: Discontinue steroids, start antibiotics**

If left untreated, perioral dermatitis rarely resolves on its own and will have a fluctuating course, punctuated by flares, that will last for years. The prognosis is excellent, however, once appropriate therapy is instituted; recurrence after treatment is low.<sup>5</sup>

■ **Cessation of topical steroids is a mainstay of treatment<sup>6,7</sup>** (strength of recommendation [SOR]: **B**). High-potency topical steroids can cause short-term improvement of the rash; removal will cause short-term worsening of symptoms. It's best, then, to switch your patient to a less potent steroid, and then gradually discontinue the steroid<sup>3</sup> (SOR: **C**). Doing so can help the patient to avoid a rebound flare and the temptation to restart the steroid for short-term relief.

It's also a good idea to tell the patient to stop using other causative agents, such as moisturizing creams, blush, foundation, oral contraceptives, and fluorinated toothpaste<sup>6</sup> (SOR: **C**).

■ **Several antibiotic regimens are successful** in the treatment of perioral dermatitis. Tetracycline 250 mg twice daily, minocycline 100 mg daily, or doxycycline 100 mg daily for 2 to 3 weeks is the initial treatment. The treatment course may last up to 6 weeks<sup>8</sup> (SOR: **B**). For children, pregnant women, or patients with allergies to certain antibiotics, erythromycin 250 mg twice daily for up to 6 weeks is also an option<sup>7</sup> (SOR: **C**).

Topical treatments can also be used, but often take longer and have been shown to be less effective than oral therapies. Metronidazole 0.75% gel applied twice daily for 14 weeks or 1% cream applied twice daily for 8 weeks has been shown to be useful<sup>9,10</sup> (SOR: **C**). Erythromycin 2% gel applied twice daily for several months is also effective<sup>7</sup> (SOR: **C**).

CONTINUED

## PHOTO ROUNDS

### Discontinuing the steroid was a challenge for our patient

We told our patient to discontinue her steroid cream, and we started her on metronidazole gel. She returned with significant worsening of her rash, including swelling and erythema. We therefore prescribed a brief course of prednisone for short-term relief while she was started on oral doxycycline. After 6 weeks of oral doxycycline therapy, her rash resolved. At a 6-month follow-up, the patient had experienced no further recurrence of the rash. **JFP**

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#### Strength of recommendation (SOR)

- A** Good-quality patient-oriented evidence
- B** Inconsistent or limited-quality patient-oriented evidence
- C** Consensus, usual practice, opinion, disease-oriented evidence, case series

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