Pustular eruption on face

Was there a connection between the patient's rash and the fact that she'd recently begun taking Bikram yoga classes?

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A 30-YEAR-OLD WOMAN came into our clinic for treatment of a facial rash. She said that she first noticed the rash (**FIGURE**) about 2 months earlier. Over the previous month, the eruption had worsened. Interestingly, the patient noted that she had started Bikram yoga (an intensive form of yoga performed in a room heated, in this case, to 105°F) 5 weeks prior to the onset of symptoms. She was taking the yoga classes 2 to 4 times a week and said that she experienced an exacerbation of her symptoms after each 1-hour session.

On physical exam, there were erythematous, inflammatory papules and pustules concentrated on her forehead. No comedones were present.

- WHAT IS YOUR DIAGNOSIS?
- HOW WOULD YOU TREAT THIS PATIENT?

FIGURE

Yoga as a trigger

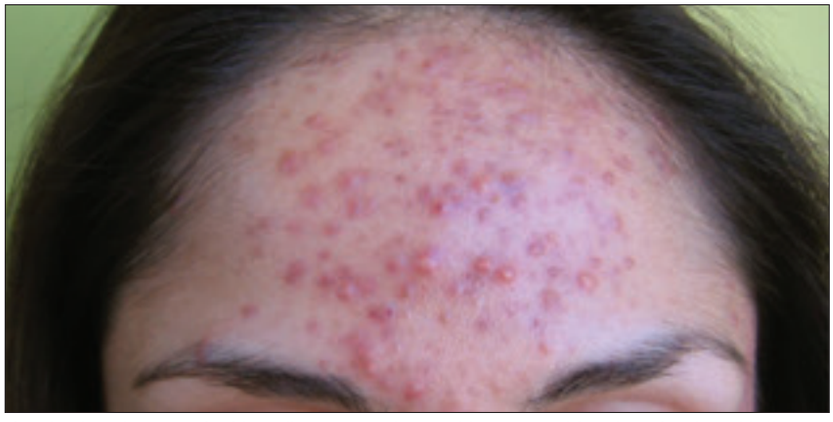

IMAGE COURTESY OF: HEATHER W. WICKLESS, MD, MPH

Shortly after she started taking Bikram yoga classes, this 30-year-old patient developed inflammatory papules and pustules. Her symptoms worsened after each 1-hour session.

The etiology and pathogenesis of rosacea are unknown, although the condition has been linked to extremes in temperature and microbial organisms.

Diagnosis: Rosacea

Our patient had rosacea, an inflammatory condition of the skin that typically affects the convex portions of the central face. This chronic cutaneous disorder usually starts after age 30 in both men and women, and is more prevalent in those with fairer skin.[1] In fact, an epidemiologic study showed the prevalence to be as high as 10% in the Swedish population.[2] The condition, which is not life threatening, can be controlled, although not cured. Its effect on appearance may have a negative impact on a patient's quality of life.

The etiology and pathogenesis of rosacea are unknown. However, different pathogenic mechanisms have been discussed in the literature, including vasculature reactivity, dermal matrix degeneration, microbial organisms, and activities that cause flushing or blushing, such as spicy food, alcohol consumption, or emotional stressors. Rosacea flare-ups have also been linked to extremes in temperature, as was the case with our patient.

Due to the varied clinical manifestations, it is likely that genetics may also play a role in the development of rosacea.[3,4]

The differential. Rosacea can be confused with acne, systemic lupus erythematosus, and sarcoidosis.

A standardized approach to diagnosing rosacea

In 2002, an expert committee assembled by the National Rosacea Society established primary and secondary criteria for diagnosing rosacea.[5] Diagnosis is based on the presence of 1 or more of the following signs in a central face distribution:

- flushing (transient erythema)
- persistent erythema
- papules and pustules
- telangiectasia.

Additionally, 1 or more of the following secondary features may also be present:

- burning or stinging
- elevated red inflammatory papules or plaques
- dry appearance
- edema
- ocular manifestations
- extrafacial rosacea
- phymatous changes (most commonly on the nose).

Rosacea comes in many forms

According to the expert committee assembled by the National Rosacea Society, the primary and secondary features (above) can be used to designate specific subtypes of rosacea.

Erythematotelangiectatic rosacea is generally characterized by flushing and persistent central facial erythema. However, a history of flushing alone is common among these patients.[5] Flushing episodes usually last longer than 10 minutes[3] and can be triggered by any vasodilating stimulus, like exercise, cold, heat, sunlight, hot beverages, or alcohol.[6-8]

Papulopustular rosacea is the form of rosacea that our patient had, and is known as classic rosacea or pink papular rosacea. It is characterized by persistent erythema in the central portion of the face with persistent or episodic papules and/or pustules. These inflammatory papules and pustules may also occur in the perioral, perinasal, or periocular areas.[5] Edema may accompany inflammatory episodes, but is frequently subtle.[9]

This subtype may be confused with acne vulgaris. The key to differentiation is looking for comedones; they are present in acne vulgaris, but absent in papulopustular rosacea. However, both rosacea and acne may be present in the same patient, making diagnosis and treatment more difficult.

Phymatous rosacea usually involves the nose (rhinophyma), but can also affect the forehead, chin, cheeks, and ears. The distinct appearance of this subtype comes from enlargement, thickened skin, and irregular surface nodularities.[5] Historically, rhinophyma has been associated with alcoholism, but there is no clear evidence of this association.[10]

Ocular rosacea affects the eyelids, conjunctiva, and cornea. Consider this diagnosis when there is 1 of more of the following findings: foreign body sensation, burning or stinging, dryness, itching, photosensitivity, blurred vision, conjunctival telangiectases, or periorbital edema.[5]

Corneal involvement can threaten sight, and up to 58% of rosacea patients may experience ocular manifestations.[11] Therefore, it is

imperative that you ask patients with rosacea if they've had any problems with their eyes, and that you examine the conjunctivae and eyelids.

Tx hinges on oral, topical agents—as well as avoidance

Erythematotelangiectatic and papulopustular rosacea have common therapies that include a long list of oral and topical agents. Agents that are most commonly used include oral tetracyclines, topical sodium sulfacetamide, azelaic acid, and metronidazole.[12]

Another approach to treatment is called the "avoidance policy," where triggers for blushing and facial erythema are identified and then avoided. One survey by the National Rosacea Society study found that 78% of patients felt that avoiding triggers was at least somewhat effective in controlling their rosacea.[13]

Time for a different form of yoga?

Because our patient developed papulopustular rosacea after taking Bikram yoga classes, we advised her to avoid this particular form of exercise because of the heat. We told her that she could, however, participate in other forms of yoga, as long as they were not done in a hot environment.

Due to the severity and severe inflammatory nature of her eruption, we started the patient on oral minocycline 100 mg twice daily, and 3 topical medicines including sodium sulfacetamide/sulfur 10%/5% wash, followed by azelaic acid 20% cream every night, and metronidazole 1% gel every morning to the affected areas.

Our patient's condition responded to treatment. The erythema on her face improved and the number of papules and pustules declined. JFP

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Comedones are present in acne vulgaris, but absent in papulopustular rosacea.

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