Correspondences

Sir,
A 35-year-old female (para 1) presented with localized swelling topped with vesicles, diffuse redness, and itching over the right hand for the last 3 days. There was premenstrual periodic recurrence for the past 6 years starting after her delivery. The lesions subsided spontaneously 3–4 days postmenstruation. There was no history of rash elsewhere, lip or eye swelling, fever, drug ingestion, or other significant medical or surgical history. Cutaneous examination revealed an ill-defined, erythematous, slightly warm, tender edematous plaque topped with few 1–2 mm vesicles over the right hand and mid-forearm, without any lymphadenopathy [Figure 1]. A differential diagnosis of angioedema, cellulitis, and urticarial vasculitis was considered. Routine investigations such as complete blood count with eosinophil count, thyroid profile, sugar, and serum IgE level were within normal limits. Biopsy was refused. Ultrasonography of the lesion showed only mild subcutaneous edema without vascular or lymphatic abnormality.

Considering the cyclic premenstrual recurrences, autoimmune progesterone dermatitis (AIPD) was considered and bedside progesterone provocation test was performed. To do the provocation test, 0.1 ml of 0.1% synthetic aqueous progesterone was injected intradermally on volar aspect of the left forearm. 0.1 ml of normal saline was injected as control. Photographs were taken at 0, 30, 60, and 120 min and 24 and 48 h. At 120 min, edema and erythema were appreciated at the injection site, and at 48 h, vesicles with coalescent bullae were ascertainable [Figures 2-4].

With a final diagnosis of AIPD, the patient was given antihistamines with good response.

AIPD, a rare periodic dermatitis, is caused due to exogenous and/or endogenous progesterone (increased secretions in luteal phase). It subsides spontaneously postmenstrually. It can be seen in men rarely. Dermatitis can present variably as eczema, papulovesicular eruption, annular erythema, urticaria, angioedema, stomatitis, aphthous ulcers, erythema multiforme, folliculitis, fixed drug eruption, purpura, vulvovaginitis, pruritus, and anaphylaxis.\(^1\)\(^2\) The exact etiology of AIPD is unknown and multiple hypotheses have been proposed:

a. Stimulation of T-helper cells due to exogenous progesterone therapy
b. Intolerance to high levels of progesterone occurring in pregnancy
c. Cross-sensitivity to other steroids
d. High expression of progesterone receptors
e. Type I hypersensitivity or Type IV hypersensitivity.

Warin has proposed the following diagnostic criteria\(^1\)

1. Cyclic dermatitis in luteal phase
2. Positive intradermal progesterone provocation test

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Autoimmune Progesterone Dermatitis

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AIPD, though rare, can present as the gamut of common clinical symptoms. Hence, a thorough history taking and high index of suspicion can aid in its diagnosis.

Declaration of patient consent
The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and anonymity cannot be guaranteed.

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Conflicts of interest
There are no conflicts of interest.

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