



Fixed drug eruption from pamabrom

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■ A young woman presented with recurrent skin lesions that were predominantly perioral. Fixed drug reaction was diagnosed based on her history of intermittent ingestion of Pamprin, a common menstrual symptom reliever, and characteristic erythematous, pigmented, edematous patches. After oral challenge with two of the three ingredients in Pamprin, a diagnosis of fixed drug reaction to pamabrom was made. Pamabrom is a mild diuretic present in several over-the-counter and prescription menstrual symptom relievers. This is the first reported case of fixed drug reaction to pamabrom.

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WE REPORT a case of fixed drug reaction to pamabrom (2-amino-2-methyl-1-propanol-8-bromotheophyllinate), a weak diuretic contained in the over-the-counter menstrual symptom reliever, Pamprin.¹ To our knowledge, this is the first reported case of fixed drug eruption to pamabrom.

stomatitis was suspected, in addition to a contact dermatitis from her benzoyl peroxide preparation. She was instructed to use acyclovir (200 mg 5 times daily) with the next occurrence of her oral lesions, and hydrocortisone cream (2.5% to be applied twice daily) for her facial eczema. She was advised to discontinue application of the benzoyl peroxide.

CASE REPORT

A 28-year-old, healthy, white woman presented to the Department of Dermatology with a complaint of oral ulcers that had occurred during her menstrual periods for the past 3 years.

Examination revealed an eczematous plaque with a small erosion on the upper lip as well as eczema of the cheeks and ears. She had recently begun to use a benzoyl peroxide topical medication. Recurrent herpetic

■ See *Kauppinen* (pp 64-65).

She returned to the Clinic with an approximately 2-cm, crusted, fissured plaque of the upper lip and an erosion on the left side of the hard palate. Her facial eczema had resolved. She reported that her oral lesions occurred on the left side of her oral mucosa (lips, buccal mucosa, or hard palate), and that they had consistently occurred in the same location for at least the past 6 months. She experienced a burning sensation at the site for the first 36 hours of each episode which was followed by vesiculation and then crusting. The lesions took approximately 14 days to resolve. Acyclovir did not improve her symptoms. A culture for herpes simplex virus was negative.

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FIGURE 1. Site of flaring fixed drug reaction 24 hours after challenge with pamabrom.

At her next Clinic visit, she was noted to have hyperpigmentation of the upper lip and scaling, purple macules about 5 mm in diameter on the left elbow and left posterior leg. The diagnosis of fixed drug reaction was suspected. Patch testing with the standard screening tray, a vehicle and preservative tray, and several flavoring agents revealed a positive reaction only to benzoyl peroxide 1%. The patient was asked to identify all of the medicines she took by mouth.

The patient provided a list of over-the-counter medications that included several brands of analgesics and menstrual pain relievers used monthly, as well as antacids, cold medications, and flavored lozenges. She recalled in retrospect that she had taken Pamprin (acetaminophen, pamabrom 25 mg, and pyrilamine maleate 15 mg) for menstrual discomfort immediately prior to the development of her oral ulcers in the past. Under supervision, she was challenged to the most likely cause, acetaminophen (first approximately 100 mg, then 325 mg) without effect.

Pamabrom was obtained from Chattem Laboratories (Chattanooga, Tenn). The patient was given a 50-mg pamabrom challenge; after 20 minutes, she experienced burning and dusky redness of the upper lip (Figure 1). Twenty-four hours later, her elbow lesion was flaring as well. She was instructed to avoid

pamabrom, and was also advised that theophylline-containing products could cross-react with pamabrom. The flare-up of the fixed drug reaction sites resolved 1 week after the challenge. She has avoided pamabrom since and has had no further problems.

DISCUSSION

Fixed drug reactions typically manifest as solitary or multiple edematous, dusky-red plaques that may vesiculate. They occur in the same location with every episode. A burning sensation is common. Because the outer portions of the lip may be involved in herpes simplex, the reaction may be confused with a herpetic lesion.² In our case, the initial presentation with a concurrent contact dermatitis due to benzoyl peroxide also obscured the diagnosis. The postinflammatory hyperpigmentation that our patient experienced is also typical of fixed drug reactions.

Pamabrom is an ingredient in several over-the-counter medications, including Pamprin Extra-Strength Multisymptom Relief Formula Tablets, Pamprin Maximum Cramp Relief Formula Caplets and Capsules, Premsyn PMS, Midol PMS, and the prescription medication Lurline PMS. Pamabrom should be added to the list of medications that cause fixed drug eruption.

Some authors do not recommend rechallenge as a diagnostic test for fixed drug eruption,² while others state that this is appropriate.³ Because this patient had used multiple medications and because fixed drug reaction to pamabrom has not previously been reported, this test was necessary.

Fixed drug reactions always occur in response to food or medication, but the precise immunologic mechanism is unknown. Commonly implicated medications include: barbiturates, phenolphthalein, analgesics, sulfonamides, and tetracyclines.^{3,4} The reaction is recipient-site dominant. This means that normal skin grafted to the site of the fixed drug eruption will become reactive, whereas skin taken from the site of the fixed drug reaction and grafted to a distant site will not continue to react to the offending agent.⁴ Patch testing at a previous site of fixed drug reaction is positive in about 30% of patients.³

REFERENCES

1. Durkin WJ, McColll JD, Hutcheon DE, Kobayaski S. A study of the diuretic activity of pamabrom in normal women. *Fed Proc* 1982; 41:1225.
2. Bruinsma W. *The Guide to Drug Eruptions*. Oosthizer, The Netherlands, The File of Medicines, 1987.
3. Bork K. *Cutaneous Side Effects of Drugs*. Philadelphia, WB Saunders Company, 1988, pp 98-108.
4. Dahl MV. *Clinical Immunodermatology*. Chicago, Yearbook Medical Publishers, 1988, p 328.