

Clinical Communications

POSTCOITAL ALLERGIC REACTION IN A WOMAN

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Abstract—Postcoital allergic reaction to drugs is a rare condition that has not been previously described in the Emergency Medicine literature. We report a case of postcoital allergic reaction in a woman who had a history of allergy to cephalosporins, which were used by her sexual partner. © 2005 Elsevier Inc.

Keywords—case report; coitus; drug hypersensitivity; penicillins; allergic reaction

INTRODUCTION

Postcoital allergic reaction to drugs is a rare condition. Few cases have been reported, and none has appeared in the Emergency Medicine literature (1–6). We report a case of postcoital allergic reaction in a woman who had a history of allergy to cephalosporins, which were used by her sexual partner.

CASE REPORT

A 38-year-old woman was seen in the Emergency Department (ED) for generalized urticarial rash over many

parts of the body, including the external genitalia, and for mild shortness of breath and tightness in the throat. These symptoms began 5 min after the patient had unprotected vaginal intercourse with her male sexual partner. The patient denied having nausea, vomiting, abdominal pain, diarrhea, or dizziness. She denied engaging in deep kissing, using the tongue and lips, or in oral genital contact. The clinically significant medical history included asthma, for which she was taking theophylline tablets, 300 mg orally; terfenadine, 10 mg orally; and was using an albuterol inhaler as needed, every 6 h.

As a child (age 5 years), the patient had an allergic reaction to injectable penicillin, a reaction characterized by hives over the body. When she was age 24 years, intradermal and patch skin testing for penicillin were reportedly positive. Three weeks before this ED visit, the patient had an allergic reaction to cefuroxime axetil, which had been prescribed as treatment for bronchitis. This reaction was possibly IgE-mediated. Further inquiry revealed that the patient's sexual partner also was taking cefuroxime axetil orally as treatment for an upper respiratory infection and that this was the first sexual relation the couple had after he had started taking the antibiotic. The patient had a moderate reaction to ceftin of generalized urticarial rash over the body, which was a worse reaction than when she had previously taken the antibiotic herself.

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Physical Examination

On physical examination, the patient was alert, awake, and in obvious distress. Vital signs were the following: blood pressure 144/86 mm Hg, pulse rate 94 beats/min, respirations 28 per minute, temperature 36.4°C (97.5°F), and oxygen saturation 8% on room air.

Results of the head, eyes, ears, nose, and throat examinations were normal with no swelling of the lips, palate, vulva, or face. The neck appeared normal. Chest examination showed mild wheezing bilaterally with no rales or retractions. Cardiac, abdominal, neurological, and extremity examinations were normal. An urticarial rash was distributed over the upper trunk, thighs, and back. Mild edema of the external genitalia was present. Before coming to the ED, the patient had taken terfenadine orally, and her condition had not improved.

In the ED, the dosage of epinephrine was 0.3 mL administered subcutaneously (1:1000). The dosage of albuterol nebulizer was increased to 2.5 mg/mL, administered over 20 min. Subsequently, her condition improved substantially, the rash disappeared, and the genital edema resolved. Results of a chest x-ray examination and of the following laboratory investigations done in the ED were normal: complete blood count and Sequential Multiple Analyzer (SMA) automated chemistry system analysis. The patient was discharged taking steroid tablets (Medrol prednisone pack and Benedryl diphenhydramine tablets, 50 mg orally). A 2-week follow-up found her free of symptoms.

DISCUSSION

Postcoital allergic reaction to drugs is rare. Few cases have been reported, and none has appeared in the Emergency Medicine literature (1–6). Practically all drugs are capable of causing allergic reactions through any of four routes of exposure: via contactants, inhalants, ingestants, and injectants. Intravenous administration of drugs may cause more severe allergic reactions than oral or intramuscular administration. Nonetheless, routes of exposure to precipitant substances or agents may not be apparent. Such substances could be antibiotic agents in treated cows' milk or frozen foods; body fluids (e.g., mother's milk, saliva, or semen) containing medication; or a medium used in a medical procedure (e.g., penicillin is used as an additive in artificial insemination) (2,3,5,7–9).

A variety of substances in semen are known to provoke allergic reactions in susceptible individuals, including medications that a sexual partner may be taking. A case of postcoital drug reaction in a female patient is paralleled in a male patient whose sexual partner was using a combination of trimethoprim and sulfamethoxazole (1,4).

This patient exhibited a positive reaction to penicillin when skin tested at age 24 years, even though 50% to 90% of people with a history of penicillin allergy produce negative results of skin testing (10). Because this patient had been having sexual relations with the same male partner for some years, we believe it unlikely that the atopic event was related to allergy to semen, "exercise urticaria" (from the sex act), or emotional excitement. We considered the possibility that the patient was exposed to the allergen through sweat excreted during intercourse, although this possibility was unlikely, particularly with the presence of edema (1,5).

The importance to emergency physicians, or to any physician, of considering these effects will be when taking a medical history and asking about any history of allergies. If a patient has any known allergy to any medication and if a male or female sexual partner is taking that particular medication, the patient may have an allergic reaction to that medication because it may be transmitted through any body fluid.

CONCLUSION

We believe that cefuroxime axetil was excreted in the semen of the partner of our patient and subsequently caused her allergic reaction. This could easily be prevented by use of a barrier (e.g., condom) during intercourse until the course of medication is completed.

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