

FIXED DRUG ERUPTION DUE TO TETRACYCLINE

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Abstract. The seventh case of fixed drug eruption due to tetracycline is reported. Self-challenge with tetracycline by the patient quickly reproduced the lesions. Because of chronic pulmonary disease the patient has continued to take a variety of drugs including antibiotics not related to tetracycline. There has been no further fixed drug eruption since interdiction of tetracycline.

Tetracycline-induced cutaneous eruptions of any kind are rare (4). A fixed drug eruption due to tetracycline is rarer yet. The subject of this brief report is the seventh such patient to be recorded.

CASE REPORT

A 44-year-old white housewife was seen on August 2, 1968, during her penultimate episode of a recurrent acute skin eruption confined to the extremities (Fig. 1), both exposed and non-exposed areas. The lesions were 1-2 cm in diameter, asymmetrically situated, itching, red to purplish-brown, slightly raised plaques, which shortly after their onset became bullous. With each recurrence, lesions reappeared in sites of prior involvement. A well-healed punch biopsy scar was present in one lesion on her right lower leg. According to the patient, a sensation of burning of her skin was followed by the eruption which appeared within a few hours after ingestion of a single tablet or capsule of tetracycline. The history and physical examination suggested a diagnosis of fixed drug eruption due to tetracycline.

Tetracycline has been prescribed by her chest physicians on an intermittent basis, usually 250 mg, four times daily for the first seven days of one or more months. It was given to treat the chronic bronchitis and pulmonary emphysema the patient suffered as a sequel to a bout of pulmonary histoplasmosis in 1964, not to mention many years of heavy cigarette smoking. A quantity of tetracycline sufficient to last from one to four months was prescribed.

The patient had had five documented courses of tetracycline given in this way without incident between August, 1965, and September, 1967. She did not report her first episode of skin eruption until January, 1968. By the time

of her out-patient visit, the acute eruption had regressed leaving only hyperpigmentation. Probably because of a past history of clinically and histologically documented lichen planus in 1965, that diagnosis, as well as the diagnosis of drug eruption, was entertained by her chest physicians.

There were three further episodes of fixed drug eruption between January and August, 1968. A skin biopsy in May, 1968, of a regressing plaque on her right lower leg showed only non-specific inflammatory changes with much incontinence of pigment into the dermis. These findings are not diagnostic of, but are compatible with, fixed drug eruption.

Erythromycin has been prescribed on one occasion, in February, 1968. In reconstructing a sequence of events from her out-patient record, it appeared that erythromycin could have been responsible for at least one episode of fixed drug eruption. Inquiry of the patient's pharmacist, however, established that the prescription for erythromycin was not filled until a month after it was written. It was apparently tetracycline, left over from a previous unfinished course, which precipitated the eruption on that occasion. Because the patient is expected to require intermittent antibiotic therapy for an indefinite period of time, and it seemed unlikely that erythromycin was responsible for any of her episodes of dermatitis, she was challenged with a single 250 mg capsule, by mouth. No reaction ensued.

The merits of challenging her with a single dose of tetracycline to document her eruption were debated. The patient, meanwhile, apparently to convince herself that no one medicine could cause so much discomfort, resolved the debate by independently challenging herself with a single capsule of tetracycline. This caused a prompt recurrence of the eruption. She was convinced.

Needless to say, the patient has taken other drugs before, during, and since her experience with the fixed eruption. These have been for the most part, bronchodilators and expectorants, including potassium iodide. Specifically, there has been no regular or sporadic ingestion of laxatives, analgesics or soporifics especially during "the first seven days of the month". No other drug but tetracycline has been discontinued and the patient remains free of the eruption (April, 1969), even when all her other medicines are continued.



Fig. 1. Dorsa of patient's hands showing vesiculobullous lesions. Her sun-tan makes the erythematous base from which the blisters arise difficult to see in this black and white photograph.

COMMENT

Fixed drug eruption due to tetracycline is decidedly uncommon (2, 3, 5-9). These drugs do at least have the distinction, dubious as it may be, of being the first class of antibiotics to be implicated in causing this interesting skin reaction (9). That it is probably the parent tetracycline compound which is responsible for producing the eruption is indicated by Welch's (7-9) series of papers, and Dougherty's (2) in which single patients were shown to cross-react to chlortetracycline, oxytetracycline, and tetracycline.

Because the diagnosis seemed established in my patient, I felt nothing could be gained by patch testing her with tetracycline at the site of the eruption. Indeed, in view of Derbes' (1) two anti-pyrine-sensitive patients who developed a fulminating bullous eruption following patch testing with antipyrine, it seemed to be an unjustifiable hazard.

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Addendum: Since submission of this manuscript, two further cases of fixed drug eruption due to tetracycline have been recorded in the literature.

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