

Drug Fever Caused by PUVA Treatment

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Here we report the case of a patient who developed drug fever during PUVA treatment. This was the only manifestation of hypersensitivity. Neither UV-A irradiation nor 8-methoxypsoralene caused a febrile reaction. *Key words: Photochemotherapy; Side-effect.* (Received March 13, 1985).

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During the past ten years, we have become aware of some of the risks of PUVA therapy, such as skin cancer, epidermal dystrophy, premature aging of the skin, pigmentary

changes, cataract formation, alterations in the immune system etc. (3). In the present paper we describe a patient, in whom PUVA treatment induced drug fever, whereas neither 8-methoxypsoralene (8-MOP) nor UV-A irradiation gave rise to complaints.

CASE REPORT

The 61-year-old female patient had suffered from psoriasis of plaque type for 18 years. She had previously participated in steroid and dithranol ointment and methotrexate treatment. Between October 15 and November 16, 1982, we administered PUVA therapy (40 mg/day 8-MOP and cumulative 69 J/cm² UV-A irradiation). After a 10-month period, during which the patient had no symptoms, PUVA treatment was resumed on October 17, 1983 (40 mg/day 8-MOP and cumulative 65 J/cm² UV-A irradiation). Treatment was interrupted on November 10, as fever reaching 39.5°C had developed 3 hours subsequently to the previous two treatments. Both times, the body temperature spontaneously normalized after 8–10 hours. Apart from an accelerated erythrocyte sedimentation rate (47 mm/hour), the clinical and laboratory examinations did not reveal any essential pathological changes: there was no eosinophils in the blood. After the cessation of treatment, the febrile state did not return.

One year later, exposure tests were carried out in an attempt to establish the cause of the febrile reaction. The patient received 40 mg 8-MOP orally, without UV-A irradiation. On the following day, 3 J/cm² UV-A irradiation was applied, without 8-MOP. Neither test caused any reaction. On the next day 40 mg 8-MOP was administered together with 3 J/cm² UV-A irradiation. Two hours later, the temperature had risen to 39.2°C, and dyspnoea developed.

DISCUSSION

Anderson et al. reported two cases of bronchial reactions during PUVA treatment. In one subject no such reaction was elicited with UVA irradiation alone, while rechallenge of the other subject with methoxsalen reproduced the bronchial reaction, indicating that the bronchial reactions were associated with the ingestion of methoxsalen (1). It is possible, however, that the bronchial reaction observed was not caused by the methoxsalen per se, but by tartrazine, an excipient of the formula (2).

Drug fever is a febrile reaction caused directly or indirectly by a drug. The usual mechanism is a specific allergic hypersensitivity. A wide variety of drugs may cause fever as the only manifestation of hypersensitivity. It is our belief that in this case the chemical transformation accompanying UV-A irradiation leads to a product of 8-MOP that causes drug fever.

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