

Short Communication

Rifampicin allergy confirmed by an intradermal test, but with a negative patch test

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Case Report

A 45-year-old Asian woman with peritoneal tuberculosis was started on quadruple therapy with rifampicin, isoniazid, ethambutol, pyrazinamide and pyridoxine. 7½ weeks into treatment, she developed a morbilliform, pruritic eruption, which started at her feet and gradually spread to her legs and trunk. This was associated with fever, chills and joint pains. A drug reaction was suspected, and all medication stopped. 7 days later, both the skin and systemic symptoms had started to settle. At this stage, that she was referred for dermatological assistance in determining which drug might be the causative agent.

She underwent patch testing to the standard and a medicament series, as well as individual patch testing of ibuprofen, rifampicin, isoniazid, ethambutol, and pyrazinamid, each at 30% pet. and aq. All readings on D2 and D4 were negative. She was then prick tested against rifampicin and isoniazid 1% w/v aq., and 30% ethambutol, 30% ibuprofen, and 30% pyrazinamide, all with negative results. An intradermal injection of 0.05 ml of a 0.1% w/v rifampicin then gave a 10-mm wheal which was interpreted as positive. 1% of isoniazid gave a 7-mm wheal, but a 0.1% concentration was negative and the test was regarded overall as negative.

A diagnosis of rifampicin-related drug allergy was made and anti-tuberculous treatment was reinstated with isoniazid, streptomycin, ethambutol and pyrazinamide. No further drug eruption occurred.

Discussion

Skin eruptions from rifampicin are rare (1), and there are only anecdotal reports of intradermal skin testing for suspected rifampicin allergy (2). However, no posi-

tive patch tests to rifampicin in suspected rifampicin allergy following systemic application have so far been reported, and in a large series of patients with adverse reactions to rifampicin, all were negative when patch tested (3). Barbaud et al. (4) found a positive skin reaction to the suspected drug in 72% of patients generally: 43% by patch, 24% by prick and 67% by intracutaneous tests, the last being the most sensitive, as in our patient.

An alternative to skin testing, the lymphocyte transformation test (LTT), was estimated to have a sensitivity of around 78% (5), significantly more sensitive than both patch and prick testing. Specificity for the LTT was 85%. Positive LTTs in patients on rifampicin without side-effects have been reported (6). A major disadvantage of the LTT is that it is very time-consuming and, at present, not widely available.

References

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