

Drug Eruption due to Low Molecular Weight Heparin

Sir,

Low molecular weight heparin (LMWH) has been introduced for routine therapeutic use for deep vein thrombosis, with the advantages of higher efficacy and fewer adverse effects. Some adverse skin reactions due to LMWH, including necrosis of the injection site (1, 2) and eczema (3, 4), have been reported. Generalized allergic reaction-like drug eruption after injection of unfractionated subcutaneous heparin has also been reported (5–7). We report here a case in which generalized skin eruption occurred after injection of LMWH.

CASE REPORT

A 32-year-old woman with deep vein thrombosis at 21 weeks of pregnancy presented with generalized skin eruption. She had no previous history of pregnancy or of other medications. She had been treated with a subcutaneous injection of LMWH (Fragmin[®]), 5000 units without benzyl alcohol, twice a day. Ten days after the last heparin injection, erythematous inflammatory plaque developed on



Fig. 1. Multiple pruritic erythematous papules and macules were observed on the anterior chest and back after injection of LMWH.

her thigh, at the heparin injection site. Erythematous, itchy, macules and papules appeared on her anterior chest and back (Fig. 1). For the intradermal skin test, 0.05 ml Fragmin[®] was injected intradermally and erythematous papules and plaque developed at the injection site after 20 min. We could not perform patch tests because she was pregnant and refused another tests. She discontinued heparin treatment and was treated with systemic and topical steroids for a week. The erythematous rash cleared after treatment.

DISCUSSION

This is a rare condition in which generalized skin eruption occurs after subcutaneous heparin injection. We have found no reports of generalized skin eruption after subcutaneous LMWH injection. Type I (6) and type IV (7) hypersensitivity reactions were suggested as the underlying mechanism of this phenomenon. The skin reactions in this patient may be caused by a delayed-type hypersensitivity reaction, considering the time course of skin reaction, but the patient refused the patch test. As an intradermal skin test was positive, we could not rule out a type I reaction as the underlying mechanism.

As mentioned above, LMWH has the same potential side-effects as unfractionated heparin, but more research is required into this.

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