and feet, and perianal, erythematous dermatitis, and in the groins after the the 8th weekly instillation of mitomycin C. Patch tests with mitomycin C 0.06%, 0.2% and 0.6% w/v in water were positive. 6 other patients who had developed dermatitis related to mitomycin were also patch tested, and 5 reacted. Approximately 9% of all patients treated with intravesicular mitomycin C will develop dermatological side-effects, either dermatitis primarily of the hands and the genitals, or "generalized" reactions. Probably most of these reactions are caused by contact allergy. The distinctive pattern of dermatitis of the hands and genitals is thought to be related to direct contact with urine containing mitomycin C, but a systemically-induced reaction by the antibiotic absorbed from the vesicular mucosa seems more likely.

Delayed-type hypersensitivity to subcutaneous heparin

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Heparin is a potent, instantly acting, widely used anticoagulant. Among the toxic and allergic adverse effects on the skin and the mucosa are hemorrhage, urticaria, rhinoconjunctivitis, asthma and local skin necrosis. Recently, delayed onset of eczematous plaques at subcutaneous injection sites, which did not progress to necrosis, has been described. In 2 patients (1 female, 1 male) 4–14 days after initiation of subcutaneous heparin therapy, infiltrated plaques developed at the injection sites which progressed to a papulovesicular, eczematous dermatitis. Skin necrosis did not occur and topical steroid treatment resulted in a complete resolution of the lesions. Histologic examination showed a spongiotic dermatitis. Skin prick tests, subcutaneous rechallenge and patch tests with the single components of the used heparin compounds revealed a typical type-IV allergic reaction to heparin of any molecular weight. The other tested ingredients were all negative. Delayed onset of eczematous reactions to subcutaneous heparin is probably a common but under-reported side-effect. Its recognition is important with regard to the possible systemic reactions after intravenous injection of heparin. The most important differential diagnosis is the potentially lethal skin necrosis which is due to thromboembolism of small skin vessels.

Exfoliative dermatitis with etofenamate

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Sensitizations to topical antiflogistic and antirheumatic agents, with different clinical patterns, have been reported. A 31-year-old-man complaining of lumbosacral pain was given etofenamate (Reumon® gel) and diclofenac tablets (Voltaren®), for the first time. 4 days later, he developed generalized pruritic papulo-erythematous lesions, beginning at the site of application, with thin scaling. Axillary and inguinal lymphadenopathy, fever (38°C), leucocytosis (12.2×10^9/l) with marked eosinophilia (3.5×10^9/l) and elevated serum glutamic pyruvic transaminase (57 U/l) were also present. Skin biopsy revealed moderate parakeratosis, exocytosis and a perivascular mononuclear infiltrate. Withdrawal of the drug, application of emollient creams and a short course of prednisolone reverted the clinical and laboratory abnormalities. 2 months later, patch tests with the Portuguese standard series were negative. Etofenamate 0.5%, 1% and 2% pet. were positive (+++) at 48 and 96 h, while diclofenac at 1%, 5% and 10% pet. were negative. 10 controls with the same tests were negative. Etofenamate is an anthranilic derivative, while diclofenac is an arylalcanoic acid derivative. Cross reactions among arylalcanoic acids have been reported but not with anthranilic derivatives. Although contact dermatitis to etofenamate has rarely been reported, to our knowledge, erythematoexfoliative dermatitis while taking this drug has never been described. The highly lipophilic properties of etofenamate with the strong positive patch test suggest this as the precipitating factor.