Correspondence

Resolving actinic keratoses: an expected side-effect of capecitabine therapy

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Actinic keratoses (AKs) are dysplastic lesions occurring predominantly on sun-exposed areas of the skin, which have the potential for transformation to squamous cell carcinoma (SCC).[1] Various treatments are available, including cryotherapy, topical therapies, curettage and photodynamic therapy. We report a case of cyclical resolving AKs in a patient treated with capecitabine for adenocarcinoma.

A 65-year-old man presented with a low stoma output and feeling generally unwell. An urgent dermatology opinion was sought because of a florid facial rash noted on admission. The patient had recently undergone total colectomy for colonic adenocarcinoma, and had just completed his last cycle of chemotherapy with capecitabine a week earlier. He had a history of AKs on his face, which had been previously treated with cryotherapy by his general practitioner.

On physical examination, inflamed lesions were seen on the patient's face, with appearance consistent with resolving AKs (Fig. 1). On further questioning, the patient reported that similar 'reactions' had occurred after each cycle of capecitabine. The conclusion was that the capecitabine was also having a beneficial effect on the AKs.

Capecitabine is a recently developed drug used for the treatment of several carcinomas, including metastatic colonic and breast carcinoma.[2] It is a pro-drug of 5-fluorouracil (5-FU), which, after absorption in the intestinal mucosa, is converted to the active cytotoxic 5-FU peripherally in the body through the enzyme thymidine phosphorylase, leading to inhibition of DNA synthesis.[2,3] This enzyme is expressed in tumour tissue. The antitumour effect of capecitabine is comparable with that of intravenous 5-FU, but has several advantages, including its availability in an oral formulation, tumour-targeted cytotoxicity, and decreased likelihood of adverse effects such as stomatitis, nausea, alopecia and neutropenia, compared with 5-FU.

Topical 5-FU (Efudex®; Valent Pharmaceuticals, Basingstoke, Hampshire, UK) is widely used for the treatment of AKs. The disruption of DNA synthesis leads to apoptosis and resolution of AKs.[1] As capecitabine is a systemic pro-drug of 5-FU, it is likely that it too has an effect on AKs. Other cutaneous side-effects of capecitabine include palmoplantar dysaesthaesia, pyogenic granuloma-like lesions, onycholysis and subacute cutaneous lupus erythematosus.[2,4]

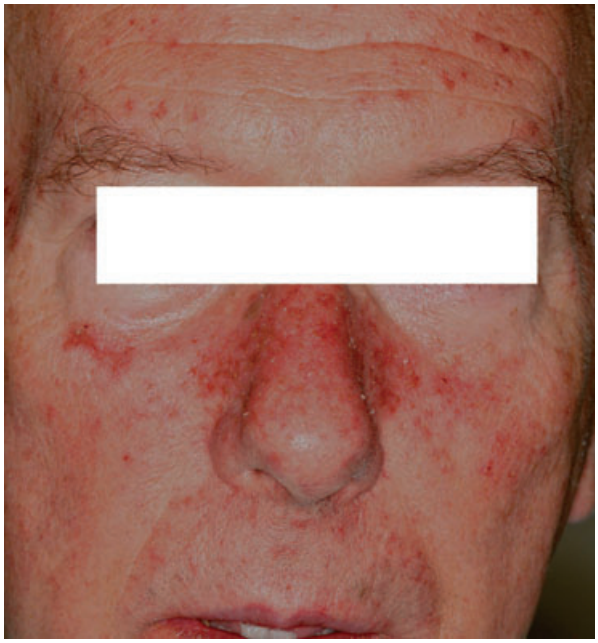

Figure 1 Resolving inflammatory actinic keratoses on the face.

Dermatologists should be aware of this side-effect in patients on capecitabine, which is likely to become more widely reported given the increased use of this chemotherapy agent in the treatment of malignancies. Recently, capecitabine has been used in the prevention of skin cancers in solid-organ transplant recipients with very promising results.[5]

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Erythema scarlatiniforme desquamativum recidivans

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Erythema scarlatiniforme desquamativum recidivans (ESDR) (also known as Féréol–Besnier disease) is an uncommon skin condition characterized by recurrent desquamation, particularly of the palmoplantar surfaces.[1,2] The disease is not well recognized; only a few cases have been described in the literature,[3,4] but it is probably underdiagnosed. We report a 57-year-old patient with ESDR.

A 57-year-old patient presented with diffuse desquamation and reddening of the hands and feet. The patient reported three prior palmoplantar desquamation episodes during the previous 2 years. On two occasions, the events were triggered by an infection of the upper respiratory tract (treated with antibiotics) and on the third by back pain, (treated with corticosteroids and analgesics). In each case, the episode was followed by a burning sensation on the tongue, dysgeusia, and a mild swelling of the lips, and then a week later, the patient noticed a painful feeling of tension of the palms and soles. Finally, about 10 days after the first precursor symptoms, the palmoplantar skin thickened and split, which was then followed by an exfoliative desquamation. The patient had no personal or family history of comorbidity or of other skin or allergic diseases.

On physical examination, a diffuse desquamation in a palmoplantar gloves-and-socks distribution overlying erythema was seen (Figs 1a,b). The remainder of the clinical examination was normal.

Laboratory investigations revealed increased γ-glutamyl transpeptidase (197 U/L; normal < 66 U/L) and C-reactive protein (4.5 mg/dL; < 0.5 mg/dL). The other laboratory results were unremarkable. The patient was seronegative for antistreptolysin, antistreptococcus DNaseB and antistaphylolysin. Bacterial cultures of the throat grew only normal flora. Urine microscopy and culture were negative, and chest radiography and abdominal ultrasonography were normal.

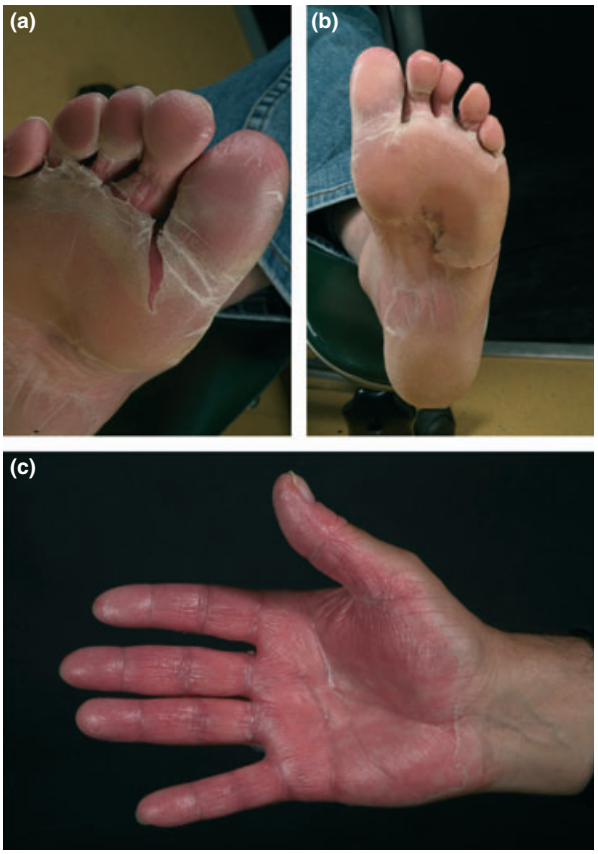

Figure 1 Patient with erythema scarlatiniforme desquamativum recidivans, showing (a,b) hyperkeratotic, thickened skin with rhagades and early desquamation on the foot; (c) after desquamation, the skin on the hand is soft but erythematous.

On histological examination, there was orthohyperkeratosis and focal hyperparakeratosis, hypergranulosis, acanthosis and mild spongiosis with perivascular inflammatory lymphocytic infiltration. There was no apoptotic keratinocytes or interface dermatitis.

A number of possible diagnoses, including scarlet fever, eczema, pityriasis rubra pilaris, psoriasis vulgaris, pellagra, metal intoxication (mercury), necrolytic acral erythema, keratolytic winter erythema, peeling skin syndrome, Kawasaki syndrome, keratolysis exfoliativa and drug-related (mostly chemotherapy-induced) acral erythema were excluded clinically or histologically,[3,4] and a diagnosis of ESDR was made.

The patient was prescribed topical corticosteroids, emollients and a topical disinfectant (chinosol) to use in the bath. After 3 days of treatment, the thickened palmar and plantar skin peeled off, revealing the soft but erythematous skin layer beneath (Fig. 1c). The erythema resolved within the following 2 weeks.

