tance of recognition of the syndrome lies with the associated nephropathy.

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Multiple Kerato-Acanthoma: A Case Report

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Abstract. A case of multiple keratoacanthomas in a 36-year-old healthy seaman is presented. Four months prior to the onset of the disease the patient had been exposed to strong sunlight. Histopathological examination gave the diagnosis of keratoacanthoma.

Key words: Multiple keratoacanthoma

Keratoacanthoma was first described by Hutchinson in 1889 as the "crateriform ulcer of the face" (8). Later, Ferguson Smith (5) reported on a patient with "multiple self-healing squamous cell epithelioma". However, it was not until 1950 that keratoacanthoma was established as a separate disease entity (10).

Keratoacanthoma is usually seen in the solitary form. This lesion is seen as a dome-shaped reddish tumour, not fixed to the underlying structures. The tumour enlarges up to 8 weeks and is characterized by a horny plug or a crust in its centre. Spontaneous regression usually occurs after a while and takes a few months (11). Keratoacanthomas may be eruptive (2, 11) and dissemination of the lesion has been reported in some cases (2).

CASE REPORT

A 36-year-old seaman was referred to this department in 1979 under the diagnosis recurrent folliculitis. Hitherto the patient had been in good health, and had no relevant family history of disease. Twenty years earlier he had had acne localized to the back. The present disease started 14 months before admission, with red itching papules on the lower legs, slowly spreading to the femora and gradually to the trunk and upper extremities. The single lesions remained unchanged for weeks and showed spontaneous healing, leaving a depressed scar. Previous topical corticosteroid treatment and peroral tetracycline had had no effect.

Four months prior to the onset of the disease the patient had been at sea in the tropics. Previous examinations in numerous countries including Holland and Canada had failed to establish a diagnosis.

Clinical examination revealed multiple tumours located to the extremities, including the soles, trunk, and ears. The tumours were firm reddish papules with central horny plugs or crusts. Some of the tumours were regressing. The size varied between 5 and 15 mm in diameter. Dispersed depressed scars were seen, probably left after tumour regression (Figs. 1 and 2). Tumours on the back, right arm, and left sole were examined microscopically.

Histopathology

The epidermis was hyper- and parakeratotic and slightly acanthotic. In the middle of the surface a keratin-filled crypt was seen. Strands of epidermis protruded into the dermis. The epidermis showed keratinization and proliferation and contained cells with "glassy" appearance. In the surrounding dermis a pronounced inflammatory infiltrate was seen, consisting of lymphocytes, granulocytes and plasma cells and, in addition, a few eosinophilic granulocytes. The vessels were normal, with perivascular cell infiltrates (Fig. 3).

Laboratory investigation

Blood counts and urine analysis were normal, as was X-ray of the lungs.

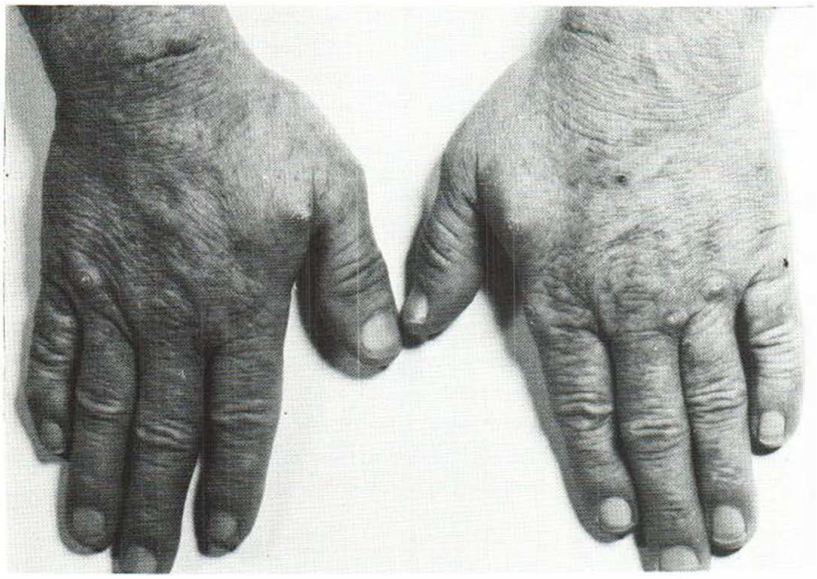

Fig. 1. Multiple keratoacanthomas on the dorsal side of the hands.

Treatment

The lesions were treated topically with coal tar and salicylic acid 10% in petrolatum, with some success. In addition, curettage of the most pronounced tumours was done.

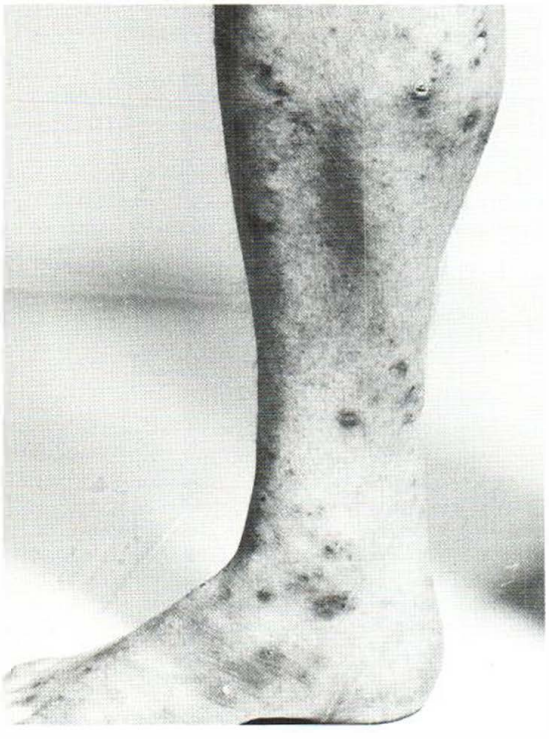

Fig. 2. Multiple keratoacanthomas on the left lower leg.

DISCUSSION

Keratoacanthomas have been proposed to have a viral origin. This hypothesis has been supported by the finding of virus-like intranuclear inclusion bodies in the lesions (11, 12). Keratoacanthoma may develop in immuno-suppressed individuals (4), which would support the virus hypothesis. The observations are consistent with the wart-virus findings in immunosuppressive patients (6). Other factors alleged to be of importance in the actiology of keratoacanthoma are sunlight (11), exposure to tar and oil products (1), and application of experimental carcinogenic substances (7). In addition, solitary

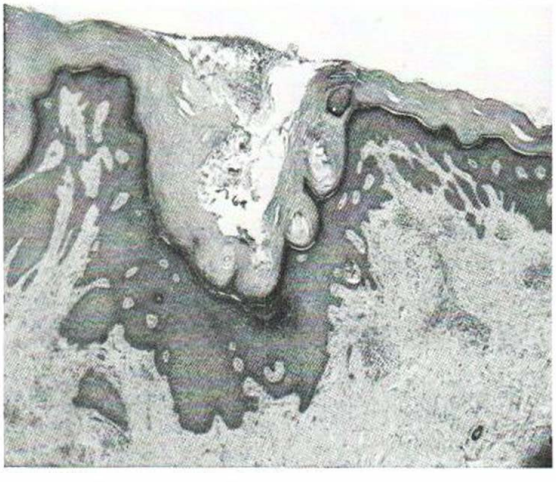

Fig. 3. Histological section.

and multiple keratoacanthomas co-existent with internal cancer have been reported (3, 9). The patient described in this report had been exposed to strong sunlight 4 months earlier. This might have triggered the onset of the disease.

Multiple keratoacanthomas are uncommon, found in men more often than in women, and are usually familial. The patient presented had no relevant family history. The lesions can involve any area of the skin, including the oral mucosa and the larynx (2). In the present case almost every region of the skin was involved except the palms and the face.

The treatment of multiple keratoacanthoma is an individual problem which in the present case was solved by therapy with coal tar and salicylic acid 10% in petrolatum combined with curettage of the most prominent lesions.

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Vaccinia and Topical Steroids: A Case Report

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Abstract. Widespread vaccinia developed in non-eczematous skin around the eyes and mouth of a 20-year-old man, whereas active eczematous lesions on both wrists were unaffected. The use of steroid ointments is discussed as a possible causal factor.

Key words: Vaccinia; Topical steroids; Local immunity

Serious complications of smallpox vaccination such as eczema vaccinatum and vaccinia necrosum have been recorded in frequencies of 38.5 and 1.5 per million vaccinated, respectively (7). While eczema vaccinatum is a manifestation of vaccinia virus in areas of eczematous skin, probably reflecting impaired local immunity (2), vaccinia necrosum represents a progressive and ultimately fatal infection in persons suffering from general immunodeficiency (6, 9). We report here a patient who developed widespread vaccinia eruptions in non-eczematous skin areas that had previously been exposed to steroid ointments, whereas active eczematous lesions in other locations remained unaffected.

CASE REPORT

A 20-year-old naval recruit was admitted to hospital with a 2-day history of fever and progressive vesicular lesions on his face. Since early childhood the patient had suffered from atopic eczema and seasonal hay fever. Except for this he had enjoyed perfect health. According to his vaccination records the patient received vaccination against smallpox in 1958, at the age of 5 months. The local reaction following vaccination was recorded as satisfactory. He was revaccinated in 1974 and in 1976, but it is uncertain whether or not local reactions occurred on these occasions.

For some years the patient had more or less regularly used steroid ointments for his atopic eczema. Except for large eczematous lesions on both wrists, the eczema had been fairly inactive during the months preceding his admission to hospital. Steroid ointments were therefore used only every second or third day on eczematous areas of the skin. The patient had never had eczematous lesions on his face. However, due to slight dryness of the skin around mouth and eyes the patient had daily for more than