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Multiple Eccrine Poromas Arising in Chronic Radiation Dermatitis

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Ullah K, Pichler E, Fritsch P. Multiple eccrine poromas arising in chronic radiation dermatitis. Acta Derm Venereol (Stockh) 1989; 69: 70–73.

A 70-year-old white man developed 7 eccrine poromas in an area of chronic radiation dermatitis of his right lower extremity over a period of 37 years. To our knowledge, multiple eccrine poromas unequivocally linked to chronic X-ray damage are hitherto unreported. (Accepted June 22, 1988.)

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Eccrine poroma (1) is a not infrequent benign appendage tumour of the skin, which originates from the acrosyringium and usually arises as a single lesion in the glossy acral regions of middle-aged to elderly persons (2, 3). There are only two reports of solitary poromas in chronic radiation dermatitis contained in the literature, both of them localized on fingers (4, 5). Since these regions represent predilection sites of poromas, the relevance of X-ray damage as a causative factor remains doubtful.

Here, we describe for the first time a case of multiple eccrine poromas confined to a region of chronic radiation dermatitis of the hairy skin suggesting a causative role of ionising radiation in the genesis of this skin tumour.

REPORT OF A CASE

The patient, a now 70-year-old white man, received X-ray therapy for the first time at the age of 9 years for chronic osteomyelitis of his right tibia. Approximately 30 years later, he developed chronic eczema of his right lower leg and according to prevalent therapeutic concepts, received at least two series of superficial X-ray therapy (1959, 1960). No data are available on type and dose of X-rays administered.

At 43 years, a reddish firm nodule was first noted on his right calf, which was left untreated until he presented again in 1973 with now clearly visible signs of chronic X-ray damage of his lower leg. The tumour—by then more than 5 cm in diameter—was excised and proved an eccrine poroma in histology. After excision, a total of 3000 rads X-ray therapy was given for incomplete removal. During the subsequent years, five more tumours of similar appearance, ranging from pea size to several centimeters in diameter, arose at various sites within the X-ray damaged region (ankle, lateral margin of the foot, calf). They were all excised and proved as eccrine poromas. At the same time, the patient continued to suffer from chronic eczema of his right lower leg and also developed a moderate lymphedema with verrucous hyperplasia and a tendency for very slow-healing trophic ulcers.

In October 1987, the patient was again admitted. His right lower leg in its entire circumference and length from knee to ankle displayed the clinical signs of X-ray damage, i.e. atrophy of skin and subcutaneous tissue, patchy hyper- and hypopigmentation and two punched out coin-sized trophic ulcers. In addition, the skin was focally indurated and eczematous. At the medial aspect of his right calf a red,

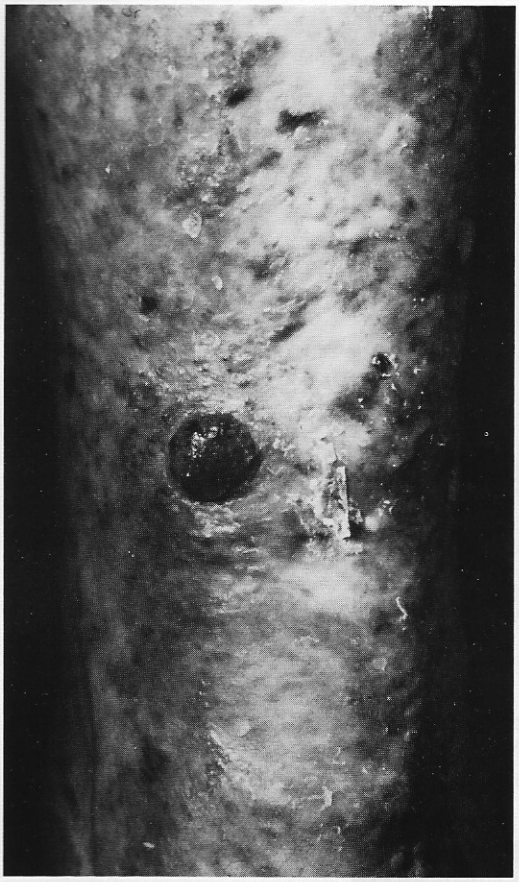

Fig. 1. Eccrine poroma in an area of chronic radiation dermatitis of the patient's right calf: a roundish, firm, red, erosive asymptomatic nodule.

protuberant, rubbery, non-tender, erosive tumour of about 1.5×1 cm was found (Fig. 1), which was excised. Histologically, the tumour conformed to the diagnosis of eccrine poroma: it consisted of anastomosing bands and islets of cuboidal cells, continuous with the epidermis and displaying ductal lumina lined with PAS-positive cuticles. Palisading of the peripheral cell layers was absent as was nuclear atypia and signs of keratinization (Fig. 2). The tumour was rich in glycogen.

All histologic specimens from the earlier poromas excised from 1973 onwards were evaluated along with the present tumour. In all instances the diagnosis was confirmed.

COMMENT

Sweat gland tumours represent approximately 1% of primary neoplastic skin lesions. About one-tenth of them are eccrine poromas (6), which are classified as benign epitheliomas. These commonly present as non-tender, red, rubbery, vascular, protuberant, sessile or pedunculated tumours measuring between 2 mm and 3 cm in diameter. They are often verrucous or lobulated and may ulcerate and ooze or bleed. Most poromas occur as solitary lesions on non-hairy areas like palms or soles. In the latter location, they may lead to difficulty in ambulation (7). Multiple tumours are exceedingly rare (8–10) and appear to be linked to a specific individual predisposition. Hereditary and external factors are generally not considered important in the causation of poromas although trauma has been implicated by Hyman & Brownstein in the pathogenesis of 7 (16%) out of their 45 cases (4) and also by others (11, 12). UV-light is obviously not involved in the pathogenesis of eccrine poromas as a rule, but

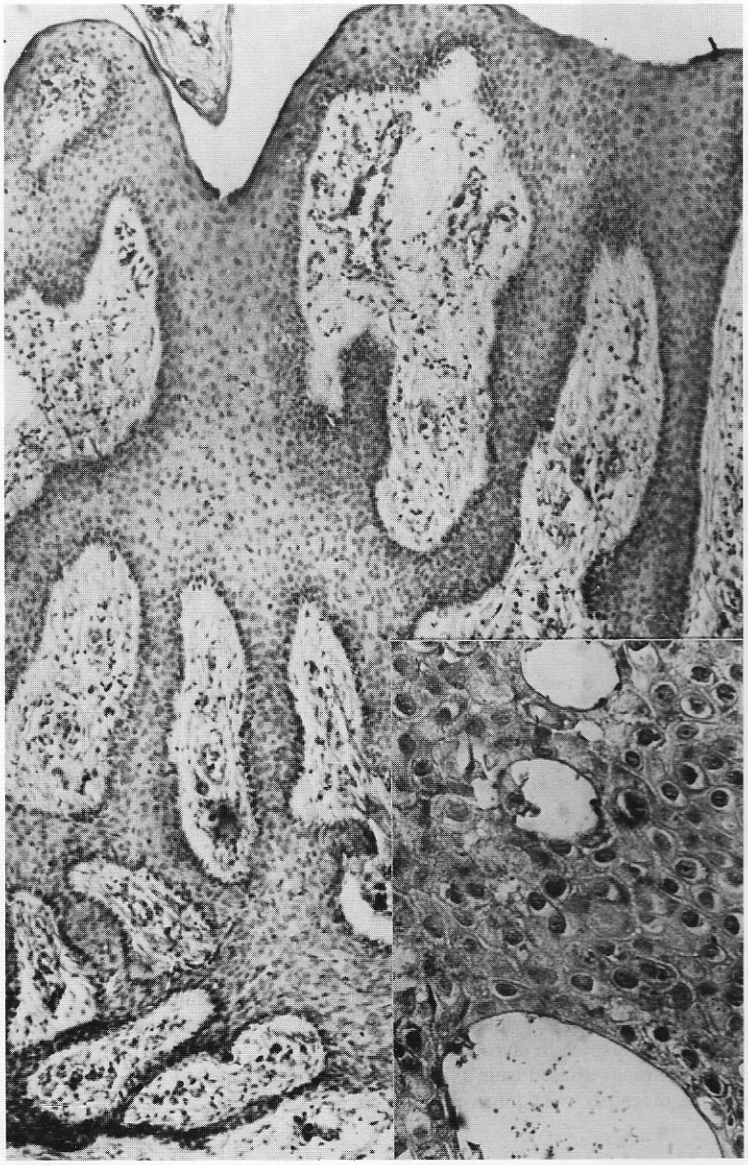

Fig. 2. The poroma consists of anastomosing bands and islets of cuboidal cells without palisading and keratinization. HE, ×25. Inset: ductal lumina with cuticula.

may play a role in the genesis of malignant poromas, which often arise in sun-exposed areas in association with actinic keratoses and squamous cell carcinomas (6).

The patient reported above had multiple eccrine poromas in succession confined to a region of chronic radiation dermatitis, which did not correspond to a predilection site of this tumor and thus is the first to suggest that X-rays may in fact occasionally trigger the development of this appendage tumour of the skin.

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Intermittent Leukapheresis: An Adjunct to Low-dose Chemotherapy for Sézary Syndrome

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McEvoy MT, Zelickson BD, Pineda AA, Winkelmann RK. Intermittent leukapheresis: An adjunct to low-dose chemotherapy for Sézary syndrome. Acta Derm Venereol (Stockh) 1989; 69: 73–76.

Eleven patients with Sézary syndrome were treated with intermittent leukapheresis in addition to low-dose chlorambucil and prednisone. The results were as good as or better than those with chemotherapy alone. We believe the combined program with continuous leukapheresis to be optimal therapy but note that intermittent treatment offers some benefit for patients. *Key words: Cytapheresis; Apheresis; Lymphapheresis; Erythroderma.* (Accepted May 11, 1988.)

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Treatment of Sézary syndrome has included multiagent systemic chemotherapy (1–3), psoralen and ultraviolet light A therapy (PUVA) (4, 5), topical application of nitrogen mustard (5), electron beam irradiation (6), and administration of anti-thymocyte globulin (7). All of these are relatively ineffective, aggravating, or only of short-term value. Low-dose chlorambucil and prednisone treatment of Sézary syndrome has produced remissions and partial remissions, and it remains the basic treatment against which other programs should be measured (8). We compared data on 11 patients treated with intermittent leukapheresis in addition to low-dose chlorambucil and prednisone and on patients treated with low-dose chemotherapy alone.