Unusual Localization of Lichen amyloidosus

Topical Treatment with Dimethylsulfoxide

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An unusual localization of lichen amyloidosus in a patient with IgG k benign monoclonal gammopathy is reported. After topical treatment with dimethylsulfoxide the lesions improved, but histological examination still showed amyloid deposits.

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Lichen amyloidosus (LA) is currently classified among the localized or skin-limited amyloidoses (1, 2) of epidermal origin (3), together with macular amyloidosis. It is characterized by severely itchy papules that vary from the colour of normal skin to yellowish brown or brownish red. Coalescence of papules causes the formation of firm or hyperkeratotic plaques. Furthermore, papular and macular lesions are frequently associated. The most common localizations are thighs, calves, ankles, dorsa of feet, extensor surface of the forearms and abdominal or chest wall. They are not accompanied by widespread organ system involvement.

CASE REPORT

A 59-year-old woman had a 4-year story of yellowish-brown papules and macules that coalesced to form spread, firm, erythematous, moderately hyperkeratotic and poorly delineated plaques. They occurred in an unusual localization, over the left buttock (Fig. 1). The skin manifestations, occurring in association with severe itching, were resistant to topical treatment with corticosteroids. The patient also had an 8-year history of benign monoclonal gammopathy of IgG k type. The low rate of plasmocytosis, the normal morphology of bone marrow plasma cells, the amount of monoclonal paraprotein (IgG k <3 g%), and the absence of Bence-Jones proteins, renal abnormalities and skeletal lesions, allowed us to exclude a diagnosis of multiple myeloma; thus the diagnosis of monoclonal benign gammopathy was made.

Histological findings (Fig. 2) included hyperkeratosis, acanthosis, and the presence in the papillary dermis of eosinophilic amorphous masses of amyloid that did not extend beyond the subpapillary dermis. Two different stains were used to demonstrate amyloid: crystal violet and Congo red. The treatment of histological sections with potassium permanganate prior to Congo red staining, demonstrated the resistance, retaining its affinity for Congo red. In areas in which the entire dermal papilla was filled with amyloid, it appeared homogeneous. Similar colloid bodies that did not stain for amyloid were also found in the papillary dermis in the vicinity of the dermo-epidermal junction and a moderate perivascular lymphomonocytic infiltrate was present.

A 10% solution of dimethylsulfoxide (DMSO) in alcohol was applied twice daily for 4 months without any other treatment. Itching improved within one week and a remarkable flattening of the papules was observed after 6 weeks of topical therapy; however, another histological specimen showed that the amyloid deposits persisted in the papillary dermis.

DISCUSSION

Various therapeutic modalities, such as intralesional injection or topical application of corticosteroids with or without occlusive medication, UVB irradiation and dermoabrasion have been employed in LA, with variable success (3). DMSO has been widely used for the therapy of secondary generalized amyloidosis (4) and localized cutaneous amyloidosis (3, 5, 6). DMSO is a stable, hygroscopic organic solvent readily miscible with a variety of organic and inorganic chemicals. Its wide spectrum of biological activities explains its pharmacological usefulness. DMSO is widely used for freezing procedures of living cells and tissues and as a penetrant carrier for several agents like bacteriostatic, diuretic and tranquillizer compounds (7). The possi-

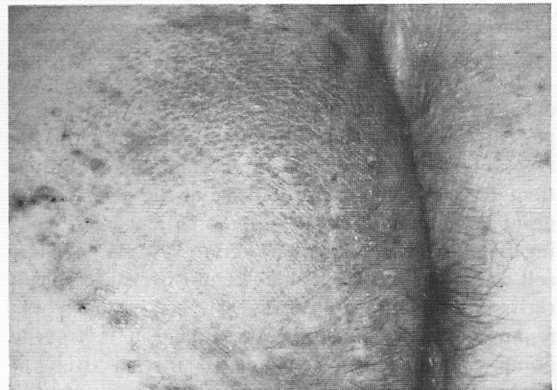

Fig. 1. Yellowish brown papules and macules, moderately hyperkeratotic, localized over the left buttock.

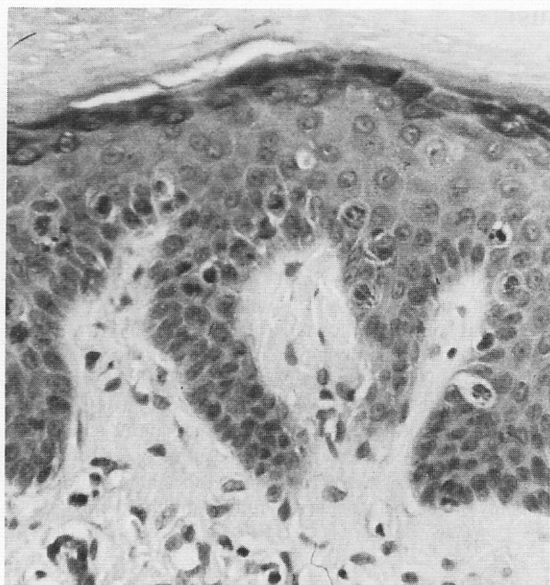

Fig. 2. Hyperkeratosis, acanthosis, and presence in the papillary dermis of amorphous masses of amyloid (Congo red, ×300).

bility of using DMSO for solubilizing amyloid fibrils was first demonstrated in murine experimental amyloidosis (8) and subsequently in patients with renal amyloidosis in which amyloid-like material was present in the urine (7).

In our experience we have observed encouraging and beneficial clinical effects by using topical DMSO in our case of LA. However, at a second histological examination we found persistence of the amyloid in the papillary dermis. Therefore further studies are needed to ascertain the real effectiveness of this kind of management in LA.

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A Survey of Elderly New Patients at a Dermatology Outpatient Clinic

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A study of all new dermatitic out patients > 70 years of age, referred in the period January–June 1987 (257 patients), was undertaken to obtain information on the types of skin diseases and the dermatological outpatient services required in the case of the elderly. The group accounted for 14 % of all new patients. The leading diagnoses were seborrheic keratosis (15.6 %), basal cell carcinoma (13.6 %), solar keratosis (13.2 %), psoriasis (9.7 %) and leg ulcer (9.3 %). A skin biopsy was required in 27 %, and surgical treatment in 31 % of the group, compared with 12 % and 16 %, respectively, of all new patients during the same period. Consequently, the elderly group were more likely to require a follow-up appointment and tended to be more time-consuming outpatients. ***Key words: Geriatric outpatients; Dermatoses.***

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During the period, 1 January–30 June 1987, 1 833 new patients were seen in the dermatology outpatients clinic, of whom 257 (14%) were > 70 years of age. They formed the patient material of the present study, the purpose of which was to learn more about the elderly dermatological outpatients and their skin