

Plantar Psoriasis: Clinical Correlation of Lesion Pattern to Weight Bearing

Sir,

The soles are not uncommonly involved in psoriasis. Lesions on the soles occur alone or in conjunction with lesions of psoriasis at other sites. The reported incidence of sole involvement varies from 0.4% to 24% of all psoriasis patients (1, 2). The lesions are mostly discrete and scattered over the soles, but diffuse involvement may also occur. Sharply defined hyperkeratotic scaly plaques and small hard keratotic lesions with a feel like nail heads are known to occur. Fissuring may be a prominent feature in some cases. Plaques of psoriasis over soles may saddle the borders of the sole, and lesions extending onto the dorsum of the feet are usually characteristic. Triggering factors like trauma in the form of weight bearing may play a role in localising the lesions at a particular site on the sole (3). A patient has been reported in whom lesions of psoriasis developed following athletic activity and the distribution of lesions correlated to the normal weight bearing curve of foot during routine walking (4), highlighting the koebnerisation phenomenon in psoriasis.

We examined, during 2 years, all patients attending the Psoriasis Clinic of the Postgraduate Institute of Medical Education and Research, Chandigarh, India. They were specifically screened for involvement of soles, irrespective of the extent of the disease on other sites. The pattern of lesions over both the

soles was recorded diagrammatically for each patient. Patients with involvement of soles as a part of extensive psoriasis, psoriasis erythroderma or pustular psoriasis were excluded from the study. Patients were recruited irrespective of age, sex, duration of disease or occupation (labourers and players included). Most of the patients used to work either barefoot or wore loose sandals/slip on type of shoes. Only some students, office workers and players wore socks and shoes. Diagnosis of plantar psoriasis was mainly clinical.

Of the 921 patients, 182 (19.8%) had involvement of soles (109 men and 73 women) with a mean age of 34.5 years. Lesions were symmetrical in 159 (82%) patients. The instep of the sole either alone 40 (22%) or in association with other areas of the sole 99 (54.4%) was the commonest site involved. Sites of pressure, i.e. heel 5 (3%), forefoot 5 (3%), lateral border 3 (2%) alone or in combination 43 (24%) were the areas next in order of involvement. Diffuse involvement of soles occurred in 16 (9%) and lesions extended onto the dorsum of the foot in 17 (9%) patients. All patients had well defined hyperkeratotic plaques with adherent scales.

Psoriasis is known to appear at sites of local injury, trauma, scar or vaccination, presumably as apart of the koebner phenomenon. Predominant involvement of instep (54.4%) cannot

be explained on the basis of pressure alone. However, involvement of sites of pressure like heel, lateral border and forefoot can be explained on the basis of koebnerisation. Trauma in the form of normal weight bearing areas of the foot may have a role in determining the sites of localisation of some of the lesions, but the predominant pattern of non-pressure site involvement has to be explained on the basis of factors other than shearing stress.

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