

## A CASE OF PSORIASIS INVERSUS OCCURRING ON A BURN SCAR AFTER 9 YEARS

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**SUMMARY :** *A fifteen year old male applied to our outpatient department with a complaint of erythema and scaling on the burn scars on both of his forearms and face. He also had similar lesions on his axillary areas.*

*The patient had the burn scars 9 years ago. He was hospitalised and a biopsy specimen was obtained from his axillary areas. The diagnose was psoriasis.*

*He used topical calcipotriol for 3 weeks. The erythema and scaling disappeared and he was discharged.*

*We decided to report this case as it was a good example for the Koebner phenomenon and responded well to calcipotriol.*

**Key Words :** *Psoriasis, Koebner Phenomenon, Calcipotriol.*

### CASE REPORT

A fifteen-year-old male has applied to our Dermatology outpatient department with the complaint of plaques of erythema and scaling having very well defined borders on the distal parts of the arms, hands and the face, and both of the axillary folds for about a year.

He had had a burn with boiling water on his arms, hands and a part of his face 9 years ago. All of the plaques except the axillary ones were on the burn scars (Fig 1, 2). The patient was hospitalized and a biopsy was obtained from the axillary area.

#### - Microscopic findings

There was acanthosis, papillomatosis, Munro microabscess in stratum corneum and a mononuclear cell infiltration in the dermis (Fig 3, 4). The di-

agnosis was psoriasis.

#### - Course and Treatment

Topical calcipotriol was applied on the lesions for 3 weeks. All the lesions regressed at the end of the therapy. The patient was discharged from the hospital.

### DISCUSSION

The form of psoriasis occurring on the intertriginous areas is called flexural or inverse type psoriasis.

Among the special features of psoriasis is the capacity to reproduce skin lesions at sites of local injury. This phenomenon was first described by Koebner in 1877 and called the isomorphic phenomenon (2).

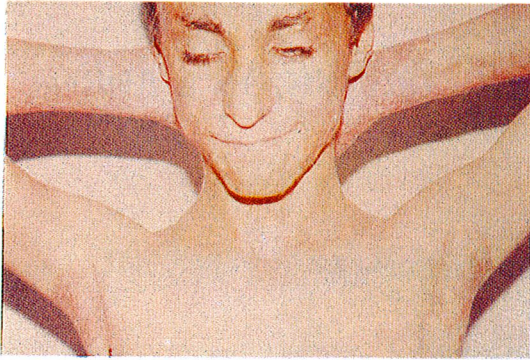


Fig- 1 : Clinical appearance of the patient.

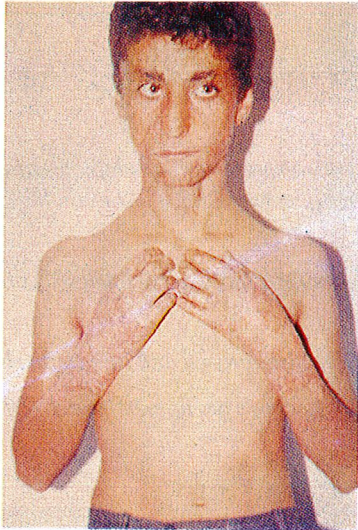


Fig- 2 : Clinical appearance of the patient.



Fig- 3 : Histopathological view.

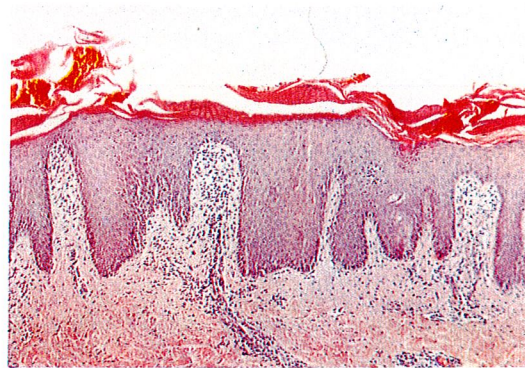


Fig- 4 : Histopathological view.

Although the precise mechanism is unknown, the important features of the Koebner phenomenon in psoriasis can be summarized as follows. The reaction may follow simple irritation, physical injury, wounds, sunburn, x-radiation, or may occur in preexisting disease or an old scar. The trauma must reach or act on the papillary dermis, but epidermal injury is also necessary. Injury that spares the epidermis will not evoke the reaction. The phenomenon occurs in almost 50 % of the psoriatics at some time during their disease.

In our patient the phenomenon had occurred on the burn scars after 9 years, and the lesions covered all the scars.

Calcipotriol is a vitamin D<sub>3</sub> analog and inhibits IL-1 and the cellular synthesis of DNA. It affects the hyperproliferation and does not cause atrophy (1).

We preferred to use a topical agent as the disease was quite local. The preferred agent was calcipotriol as it did not cause atrophy.

We present this case of inverse psoriasis as we believe that it is a clear instance of Koebner phenomenon presentation occurring on a scar tissue of 9-year presence which we treated successfully with topical Calcipotriol.

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