KERATOSIS PUNCTATA OF PALMAR CREASES
(Case Report)

T. P. THANKAPPAN, * K. R. HARILAL † AND JACOB ZACHARIA ‡

Summary

Five cases of keratosis punctata of palmar creases, which is a variant of keratosis punctata are reported. Two of these cases were associated with psoriasis and one case with dermatitis herpetiformis. Familial tendency was noticed in 4 cases.

Keratosis punctata of the palmar creases has been considered as an uncommon variant of keratosis punctata, which itself is considered a rare condition[1]. Keratosis punctata of the palmar creases appears clinically as small hyperkeratotic plugs situated in cup-like depressions of the epidermis exclusively limited to the larger flexion creases of the palm and digits[2].

A total number of 14 cases have been recorded in the literature till 1979. All the seven cases reported by Weiss and Rasmussen and three other cases reported earlier, were in black races[2]. To the best of our knowledge no case of keratosis punctata of the palmar creases has been reported in the Indian literature. Here we are reporting five cases encountered in the dermatology department within a period of 6 months. With this report we wish to highlight that the condition is not uncommon in our place and since this entity is usually asymptomatic it may escape the notice of the patient and the doctor.

* Tutor in Dermatology & Venereology Medical College, Kottayam.
† Professor of Pathology, Medical College, Kottayam.
‡ Associate Professor of Dermatology, Medical College, Kottayam.
Received for publication on 27—8—1981

Clinical data

Out of the five cases studied four were males and one female. The age range was from 27 to 68. A positive family history was noted in four out of five cases. Duration of the disease was not known in four cases and nobody gave any previous history of syphilis or treatment with arsenic. Involvement of sole was noted only in one case and two cases were associated with psoriasis and one case with dermatitis herpetiformis.

Histopathology

Biopsy was done in two cases. It showed a cup-like depression with a marked keratin layer over the surface of the epidermis and occasional parakeratotic cells. Squamous epithelium appeared normal exeept in the base of the cup where the rete pegs are flattened. Granular layer was prominent. The prickle cell layer is normal in thickness and the morphology of cells. The dermis showed very scanty lymphocytes close to the basal cells.

Discussion

Scott et al[3] has estimated the incidence of keratosis punctata of the palmar creases in a series of 6100 dermatology cases seen at two U. S. Army General Hospitals as 1 : 2000. Weiss

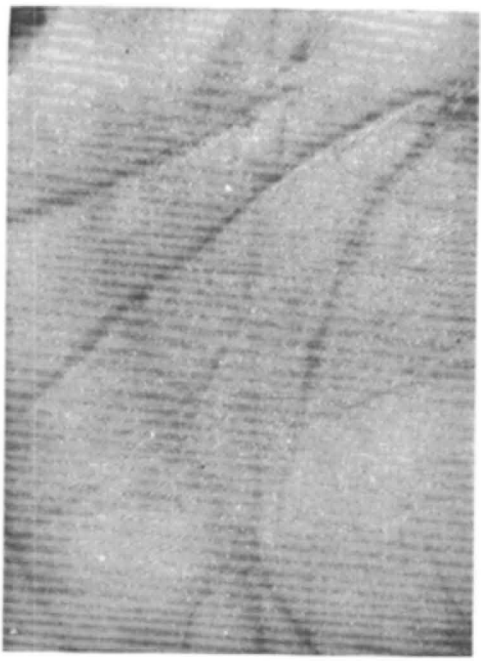

Fig. 1 Photograph of the palm showing the pits over the palmar creases.

and Rasmussen determined the prevalence of keratosis punctata in 534 cases who attended the hospital for other reasons and they discovered seven cases and all were in black races. Since this condition is usually asymptomtic the correct prevalence of the disease cannot be evaluated. A total of 14 cases have been recorded in the literature till 1979[2]. This rare condition is not an uncommon finding in our place. We could collect 5 cases of keratosis punctata of the palmar creases in a short period of 6 months.

A familial tendency of the disease has been repeatedly noticed[4]. The trait appears to be dominantly inherited. Out of the 14 cases recorded in the literature only one case had positive family history. Since the condition is often asymptomatic, reliability of a negative family history is not satisfactory[2].

In four of our five patients, familial tendency for the disease was observed. In one case the relatives could not be examined. Onset of the disease could not be established accurately in all these cases as the defect is minor and causes no discomfort[5]. Keratosis punctata of the palmar creases is occasionally seen to involve the soles also. Four of the patients described in the literature had involvement of the soles[2]. Among our patients only one patient had involvement of the soles.

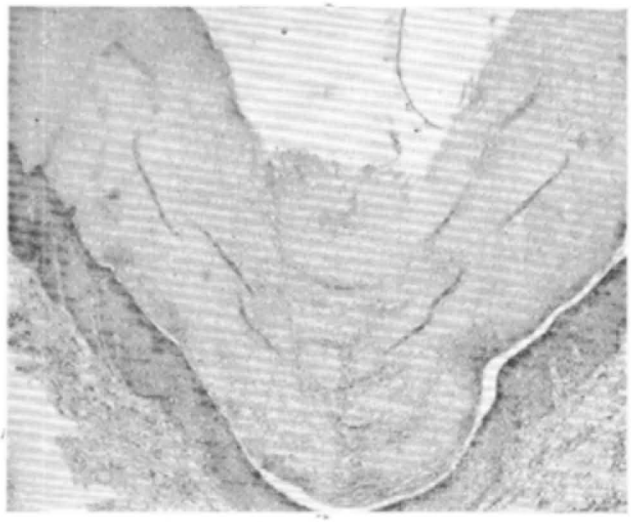

Fig. 2
Microphotograph showing the cup-like depression with thick keratin layer over the cup under low power.

Histopathological study done in 2 cases conforms in general to the

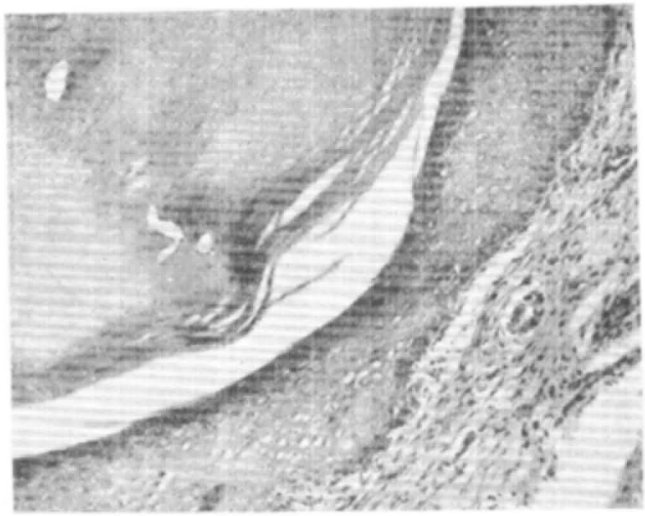

Fig. 3
Microphotograph showing the cup-like depression with thick keratin layer over the cup under high power.

histopathology of the previously reported cases. Harvel[6] reported presence of focal hyperkeratosis, and an epidermal depression corresponding to the pits. According to Weiss and Rasmussen[2] there is a central depression with loss of granular layer and focal vertical parakeratosis in the horn overlying the depressed area. Further the epidermis at the base of the depression is thinned with some anastamosis of the rete ridges. In our cases, the granular layer was prominent in contradistinction to the above findings. Mononuclear infiltrate and parakeratosis noticed in our cases is in agreement with the findings of Weiss and Rasmussen[2].

Out of the five cases 2 were associated with psoriasis and one with dermatitis herpetiformis. Review of the literature failed to show[3] any association of keratosis punctata of the palmar creases with other dermatological conditions. However, one case reported earlier had latent syphilis and arsenic treatment of syphilis. Elder sister of one of our patients with psoriasis and keratosis punctata, had psoriasis and her younger sister had keratosis punctata of the creases. The clinical improvement did not have any beneficial effect on keratosis punctata.

References

1. Costello MJ & Gibbs RC : The palms and soles in Medicine, Charles C. Thomas, Springfield 1967; 133-141.

2. Weiss RM, Rasmussen JE : Keratosis Punctata of the Palmar Creases, Arch Dermatol 1980; 116 : 669-671.

3. Scott MJ, Costello MJ & Simuangco SA : Keratosis Punctata Palmaris et Plantaris, Arch Dermatol Syphilol 1951; 64:301-308.

4. Coupe R & Usher B : Keratosis Punctata Palmaris et Plantaris, Arch Dermatol, 1963; 87 : 91-95.

5. Buchanan RN Jr : Keratosis Punctata, Palmaris et Plantaris, Arch Dermatol 1963; 88 : 644-650.

6. Harwel WB : Keratosis Punctata, Arch Dermatol 1976; 112 : 255-256.