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# Diffuse epidermolytic palmoplantar keratoderma (Unna-Thost-)

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## DESCRIPTION

We report the case of a 28-year-old man presenting to our hospital with refractory diffuse hyperkeratosis of palms and soles. He reported first appearance in early childhood. His first-born daughter also developed hyperkeratosis on palms and soles directly after birth. No other family member seems to be affected by similar skin lesions.

Clinically, our patient presented diffuse hyperkeratotic palms and soles with sharp red margins on the side of feet and back of the hands (figure 1).

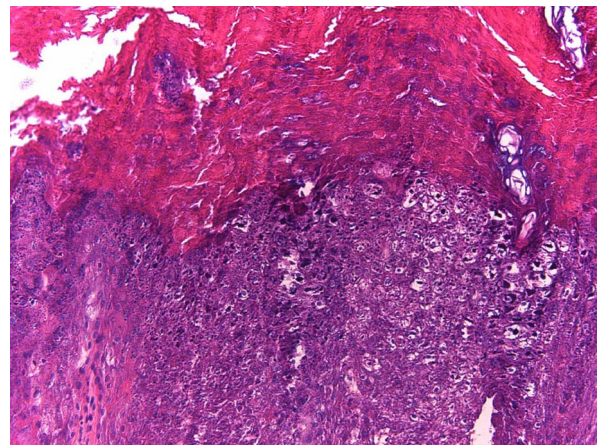
To assure our suspicion an excisional skin biopsy of the palm was taken. Histologically epidermolytic hyperkeratosis was found (figure 2). In synopsis of clinical and histological data and family history we diagnosed Vörner type of palmoplantar keratoderma (PPK).

We started a treatment with acitretin 20 mg/day and a local treatment consisting of tretinoin and urea twice a day. Under this treatment the hyperkeratotic palms and soles slowly improved and so far no side effects have been noticed except for dry lips.

As it is already known, the PPK follows autosomal-dominant inheritance with a mutation in the keratin 1 and 9 genes.<sup>1</sup> Recently, it has been shown that epidermolytic PPK due to keratin 9 mutation can lead to digital mutilation.<sup>1</sup> In a study from 1992, the family originally described by Thost showed typical histological features of epidermolytic hyperkeratosis very similar to Vörner's PPK.<sup>2</sup> In 2002, Küster *et al*<sup>3</sup> identified mutations in the same part of the keratin 9 gene. Hence, genetically PPK Unna-Thost and Vörner are the same entity.



**Figure 1** Clinical features with hyperkeratotic skin on both palms with red sharp margins.



**Figure 2** H&E stain displaying epidermolytic hyperkeratosis.

## Learning points

- ▶ The Vörner-type palmoplantar keratoderma (PPK) follows autosomal-dominant inheritance with a causal mutation of the keratin 9 gene on chromosome 17q21.
- ▶ Several reports state that the previous historical classification of PPKs needs reconsideration.
- ▶ The PPK Unna-Thost and Vörner can be summarised as one type.

**Competing interests** None.

**Patient consent** Obtained.

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