Unilateral verrucous psoriasis on the leg: A rare presentation

Sir,

Psoriasis is a common inflammatory disease with a range of clinical presentations and a chronic relapsing course. Verrucous psoriasis (VP) is a rare atypical presentation of psoriasis that can prove to be a diagnostic and therapeutic challenge.This variant is distinguished by its warty appearance and characteristic histology. We report a case of this rare form of unilateral VP on the left leg in an elderly man.

An 80-year-old male was presented with an itchy, scaly, reddish lesions with cauliflower-like growths on the left leg. Twenty years back, he noticed few reddish scaly small elevated lesions on the left thigh, which gradually increased in size with more scaling and itching. He had linear distribution on the left leg without any lesion on right leg. There was a history of multiple treatments without much improvement. One year ago, he developed cauliflower like warty growths not only on pre-existing lesions but also on normal skin which did not involve other body sites. There was no family history, and there was no history of joint pains or systemic complaints.

On general examination, he didn't show any significant abnormalities and his vitals were stable. Cutaneous examination revealed multiple well defined erythematous plaques, at places coalescing to form large plaques with silvery white loose scaling on the inner aspect of the left thigh and left lower shin (Fig. 1). Also, there were multiple verrucous hypertrophic nodules on the same site distributed discretely, some of them were on pre-existing plaques but the majority of them were on apparently normal skin (Fig. 2). The auspitz sign was positive; scalp, nails, and lumbosacral areas were not involvedwhile the genitalia and mucosae were also normal. Systemic examination did not reveal any abnormality.

Punch biopsies were taken from plaque and verrucous nodule. The biopsy from the plaque revealed psoriasiform epidermal hyperplasia, broad parakeratosis, and hypogranulosis, collections of neutrophils within the stratum corneum (Munro's microabscess), thin suprapapillary epidermal plates, dilated and tortuous blood vessels in papillary dermis with superficial perivascular, and lymphocyte-predominant inflammatory infiltrate (Fig. 3). In addition, the biopsy from the verrucous nodule showed marked papillomatosis, digitate epidermal hyperplasia and epithelial buttressing(Fig. 4a, 4b & 4c). Periodic acid-Schiff (PAS) stain didn't show fungal element and Human papilloma virus (HPV) DNA was negative. Routine laboratory blood investigations were within normal limit.

The patient was started on oral methotrexate 7.5mg one tablet once a week with topical clobetasol and emollients. As the patient did not came for follow up, he was contacted on the telephone, and he reported to have significant improvement (decreasing scaling, flattening of verrucous lesions and no new lesions since the treatment started).

VP is a rare variant of psoriasis often confused with other skin conditions such as verruca vulgaris, verrucous epidermal nevus, and fungal infection [1]. Men are 1.6 times more frequently affected than women, with a median age of 53 years [1-4].

The lesions are often located on the elbows, hands, knees, and feet suggesting that friction may be an etiologic factor. Other predisposing factors include poor lymphatic circulation, diabetes, and obesity [1,3,4]. Our patient had no predisposing factors. Unilateral linear psoriasis develops in the lines of Blaschko, somatic recombination is thought to occur; a gene predisposing to psoriasis is involved, which leads to segmental mosaicism [5, 6] and similar reason might be for unilateral distribution in our case.

A linear psoriasis is a rare form of psoriasis, with few cases reported in the literature [7, 8, 9]; therefore, there is no estimated prevalence. VP has a characteristic scaly erythematous plaque with a verrucous surface. VP shows similar histopathological finding to plaque type of psoriasis with marked epidermal hyperplasia, marked papillomatosis and epithelial buttressing. VP responds poorly to local therapy (corticosteroid, vitamin D,

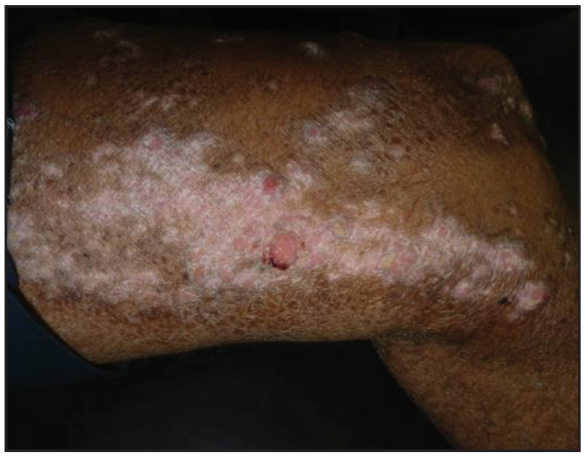

Figure 1: Multiple well defined erythematous plaques, with few verrucous nodules on the inner aspect of the left thigh.

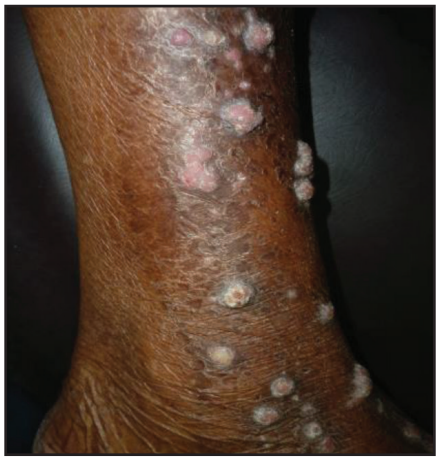

Figure 2: Multiple erythematous verrucous nodules and few well defined plaques with dry white loose scaling on the left lower shin.

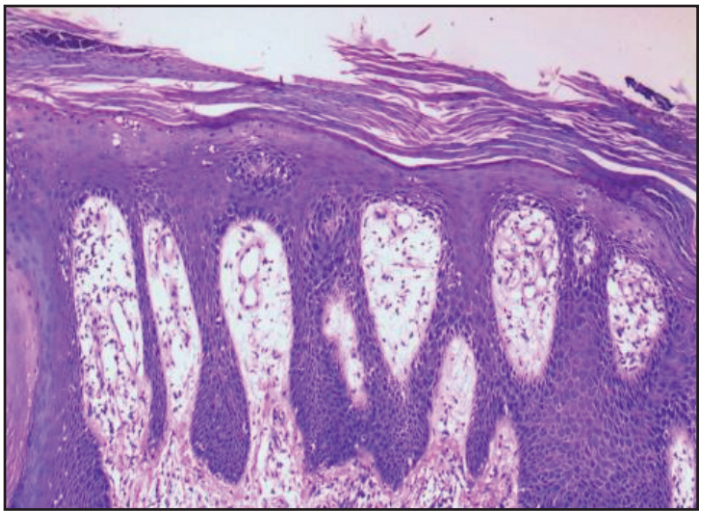

Figure 3: Biopsy from plaque showing psoriasiform epidermal hyperplasia, broad parakeratosis with hypogranulosis, Munro's microabscess, thin suprapapillary epidermal plates and dilated, tortuous blood vessels in papillary dermis [H&E, 100x]

PUVA therapy). Etretinate, adalimumab, and methotrexate have been effective anecdotally [2-4, 10].

In conclusion, it is important that physicians should be aware of Verrucous psoriasis and they should distinguish it from verrucae, lichen planus hypertrophicus, chromoblastomycosis, verrucous epidermal nevus, and verrucous carcinoma.

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REFERENCES

1. Khalil FK, Keehn CA, Saeed S, Morgan MB. Verrucous psoriasis: a distinctive clinicopathologic variant of psoriasis. Am J Dermatopathol 2005:27:204-7.
2. Curtis AR, Yosipovitch G. Erythrodermic verrucous psoriasis. J Dermatolog Treat 2012;23:215-8.
3. Okuyama R, Tagami H. Psoriasis verrucosa in an obese Japanese man;a prompt clinical response observed with oral etretinate. J Eur Acad Dermatol Venereol 2006;20:1359-61.

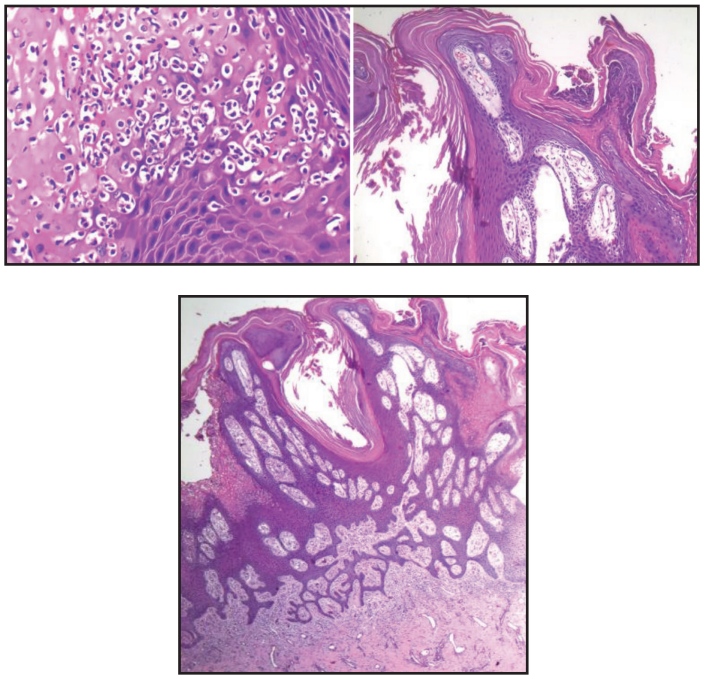

Figure 4: Biopsy from nodule showing a)marked papillomatosis, digitate epidermal hyperplasia and epithelial buttressing [H&E, 100x] b)marked papillomatosis, broad parakeratosis with hypogranulosis and dilated, tortuous blood vessels in papillary dermis [H&E, 100x] c) collection of neutrophils in parakeratotic stratum corneum (Munro's microabscess) [H&E, 400x]

4. Wakamatsu K, Naniwa K, Hagiya Y, Ichimiya M, Muto M. Psoriasis verrucosa. J Dermatol 2010;37:1060-62.
5. Happle R. Somatic recombination may explain linear psoriasis. J Med Genet 1991;28:337.
6. Hofer T. Does inflammatory linear verrucous epidermal nevus represent a segmental type 1/type 2 mosaic of psoriasis? Dermatology 2006;212: 103-7.
7. Chien P Jr, Rosenman K, Cheung W, Wang N, Sanchez M. Linear psoriasis. Dermatol Online J 2009;15:4.
8. Purohit S, Kanodia S, Shukla SR, Saxena VN, Meena RS, Saxena V. Linear psoriasis. Indian J Dermatol Venereol Leprol 2006;72:398.
9. Vissers WH *et al.* Immunohistochemical differentiation between inflammatory linear epidermal nevus (ILVEN) and psoriasis. Eur J Dermatol 2004;14: 216-20.
10. Maejima H, Katayama C, Watarai A, Nishiyama H, Katsuoka K. A case of psoriasis verrucosa successfully treated with adalimumab. J Drugs Dermatol 2012;11:e74-5.

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