Linear psoriasis: A rare presentation

Sir,
A 70-year-old female presented with occasional mildly pruritic linear lesions over left upper limb of 10 years duration. The lesions initially started on the left forearm and progressed proximally over the left arm and distally up to the first web
space of hand. There was no history of trauma or skin lesions elsewhere in the body. No other family members had similar lesions. Examination revealed well-defined, erythematous scaly papules and plaques arranged linearly over the lateral border of distal left arm, left forearm extending up to the first web space [Figures 1-3]. There was no involvement of nail or scalp. There were no psoriatic skin lesions elsewhere in the body. Skin biopsy was taken and histopathology revealed orthokeratosis, parakeratosis, Munro’s microabscesses, elongated and club-shaped rete ridges, suprapapillary thinning of epidermis and focal lymphocytic infiltrates in superficial dermis [Figure 4]. Thus, the diagnosis of linear psoriasis was established. The patient was treated with twice daily application of combination of 0.05% clobetasol propionate and 3% salicylic acid for 4 weeks following which the lesions resolved.

Linear psoriasis is characterized by a linear distribution of psoriatic lesions along Blaschko’s lines. True linear psoriasis in the absence of lesions elsewhere is extremely rare with few cases reported in the literature.[1] Happle proposed the pathogenesis of linear psoriasis as somatic recombination of a gene predisposing to psoriasis leading to segmental mosaicism. This hypothesis offers a reasonable explanation for linear psoriasis being a nonhereditary trait and the linear distribution similar to many other mosaic skin disorders.[2] Linear psoriasis may be confused with inflammatory linear verrucous epidermal nevus (ILVEN) or Koebner’s response of psoriasis over verrucous epidermal nevus.[3] ILVEN tends to develop during the first month of life, progresses slowly, can be very pruritic and is usually unresponsive to treatment. However, linear psoriasis tends to develop later in life, progresses rapidly, only occasionally pruritic and responds well to antipsoriatic treatment.[4] Immunohistopathological studies may be helpful in further distinguishing linear psoriasis and ILVEN. There is lower expression of keratin 10 in psoriasis as compared to normal levels in ILVEN. Invulcricin expression is absent in ILVEN, but detectable in psoriasis.[4] Psoriasis overlying an epidermal nevus also has been described, but the lesions are extremely pruritic and most of the cases develop typical psoriatic lesions elsewhere in the body.[5] Our patient had onset of lesions late in life and did not develop lesions of psoriasis elsewhere in the body. [Figure 1: Forearm with psoriatic lesions in the linear distribution  

Figure 2: Close view of the lesions showing erythematous scaly plaques  

Figure 3: Psoriatic lesions extending to hand  

Figure 4: Histopathological examination showing hyperkeratosis, parakeratosis, Munro’s microabscess, elongated and club-shaped rete ridges, suprapapillary thinning of epidermis and focal lymphocytic infiltrates in superficial dermis]
body during the span of 10 years and the lesions progressed only in a linear distribution causing only mild pruritus. In addition, histopathology revealed features of psoriasis and the lesions responded well to treatment.

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