Vitiligo and lichen planus in striae: Is it Koebner phenomenon?

Sir,

We read with great interest the article, "The isomorphic phenomenon of Koebner" by Thappa DM.[1] It is indeed a good compilation. In this regard we would like to add a few words.

Koebner phenomenon (KP) refers to the development of isomorphic lesions in the traumatized area of normal skin in certain skin diseases.[2] Recently Koebner phenomenon has further been subdivided into two classes: KP-h (KP from history) and KP-e (experimentally induced KP).[3] But in both the cases only external trauma can induce this phenomenon.

We have documented the spread of vitiligo and lichen planus, two representative diseases in which KP occurs, along stretch marks.[4,5] The pathology of striae essentially lies in the sub-epidermis, while the overlying epidermis remains normal, except for some thinning.[6] Whether stress rupture of the connective tissue framework is the real cause of striae is still a matter of controversy,[7,8] but there is unanimity that other than thinning and flattening the epidermis remains intact and the clinical picture is the visible result of the dermal changes.[9] The dermal collagen is layered in thin eosinophilic bundles, oriented in straight lines parallel to the surface in the direction of presumed stress. Scanning electron microscopy reveals some amorphous sheet-like structures.[10,11] These changes should not initiate the changes of LP, where the primary defect is epidermal basal cell damage. That these changes were not produced by scratching was indicated by the fact that the intervening normal skin was unaffected. Lesions of LP developed only along the course of stretch marks.[5] Similarly in vitiligo the pathological changes are in the basal cell layer of the epidermis.

How a fundamentally sub-epidermal condition like striae can trigger the spread of vitiligo and/or lichen planus is still an unanswered question.

Koushik Lahiri, Subrata Malakar
Consultant Dermatologist, Rita Skin Foundation, Kolkata, India.

Address for correspondence: Koushik Lahiri, Rita Skin Foundation, GD-381, Sector III, Salt Lake, Kolkata - 700 106, India.
E-mail: koushik66@vsnl.com

REFERENCES

1. Thappa DM. The isomorphic phenomenon of Koebner. Indian J Dermatol Venereol Leprol 2004;70:187-9.
2. Boyd AS, Neldner KH. The isomorphic response of Koebner. Int J Dermatol 1990;29:401-10.
3. Njoo MD, Das PK, Bos JD, Westerhoff W. Association of the Koebner phenomenon with disease activity and therapeutic responsiveness in vitiligo vulgaris. Arch Dermatol 1999;135:407-13.
4. Lahiri K, Sengupta SR. Vitiligo developing on striae: An isomorphic phenomenon? Indian J Dermatol 1996;41:70-1.
5. Lahiri K, Malakar S. Lichen planus developing along striae gravidarum. Indian J Dermatol 2004;49:156-7.
6. Zheng PS, Lanker RM, Lehman P, Kligman AM. Morphologic investigations on the rebound phenomenon after corticosteroid-induced atrophy in human skin. J Invest Dermatol 1984;82:345-52.
7. Agache P. Mechanical factors in striae distensae. *In*: Moetti G, Rebora A, editors. Striae distensae. Milan: Brocades; 1976. p. 87.
8. Stevanovic DV. Corticosteroid induced atrophy of the skin with telangiectasia. A clinical and experimental study. Br J Dermatol 1972;87:548-56.
9. Shah BH, Talati NK. Disorders of connective tissue. *In*: Valia RG, editor. IADVL Textbook and Atlas of Dermatology. 1st Ed. Bombay: Bhalani; 1994. p. 800-24.
10. Arem AJ, Kischer CW. Analyses of striae. Plast Reconstr Surg 1980;65:22-9.
11. Breathnach AS. Ultrastructure of epidermis and dermis in striae atrophicae. *In*: Moretti G, Rebora A, editors. Striae distensae. Milan: Brocades; 1976. p. 35.