Lichenoid Drug Eruption Following the Blaschko Lines

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Abstract
Eruptions similar to those of lichen planus (LP) are associated with systemic diseases or have been induced by many drugs. Linear lesions as a Koebner effect are frequently found in LP but isolated long, narrow, linear lesions, which may extend the whole length of the limb, are rare though rather more common in childhood. Some cases of zonal or zosteriform LP have been described in the literature. We describe a case of LP with a linear distribution following the Blaschko embryologic lines induced by nicergoline in a 65-year-old woman with a 6-month history of a pruritic eruption of erythematoviolaceous papules on the left breast, trunk and upper limb, with histological features of LP. It would be the first case of linear LP associated with drugs.

Linear and zosteriform variants of lichen planus (LP) are rare forms of LP. To our knowledge these forms of LP have not been associated with drugs. We describe a case of LP with a linear distribution following the Blaschko embryologic lines induced by nicergoline.

Case Report
We observed a 65-year-old woman with a history of hypertension treated with nicergoline, an α-adrenergic blocking agent, for 6 months. She presented a pruritic eruption with a linear distribution 4 months after beginning this treatment. Physical examination revealed an erythematoviolaceous eruption consisting of flat-topped shiny papules along the Blaschko lines affecting the left breast, hemithorax, axillae with an ‘S’ shape and a longitudinal location on the ventral side of the left arm (fig. 1). Routine laboratory examination including blood count and hepatic parameters as well as spinal cervical and dorsal column X-rays were normal. The cutaneous biopsy showed hyperkeratosis with prominent focal hypergranulosis, Civatte bodies and hydropic degeneration of the basal epidermal layer with Max-Joseph spaces. A lichenoid lymphocytic infiltrate with numerous eosinophils in superficial and mid-dermis was present. Treatment with nicergoline was stopped and 2 months later only a residual lesion on the axillae remained which was infiltrated with betametasone (3 mg/ml) and 1 month later had completely disappeared.
Lichenoid drug eruption (LDE) may be clinically identical to idiopathic LP and a detailed clinical history is important in order to make the diagnosis [1]. Numerous drugs can be inducers of LDE [2] and α-adrenergic blocking agents are also causes of LDE. The latent period between the beginning of a pharmacological treatment and the appearance of the eruption is longer in LDE than in certain findings such as the presence of eo-sinophils and plasma cells in the cellular infiltrate are more characteristic of LDE [2].

Zosteriform LP is a relatively rare variant of LP [5,6] which has not to date been associated with drugs. Lesions of zosteriform LP appear with a metameric pattern in relation with segmental cutaneous nerves. On the other hand, lesions of ‘blaschkitis’ do not follow any neural, vascular or lymphatic line and appear with the shape of ‘V with open arms’ in the dorsal raquis, in form of a
horizontal ‘S’ in the anterior trunk, of a spiral in the scalp and in a longitudinal shape in the limbs. However, some authors describe a certain or probable relationship between linear LP and Blaschko lines [7]. Grosshans et al. [8] propose the term blaschkitis for those acquired lesions that follow Blaschko lines and the linear distribution might be explained by cellular mosaicism. During fetal life a mutation may have caused a clone of cells with a different histocompatibility antigen to populate a specific area of the skin. An immunological tolerance to aberrant cellular clones may exist but several factors may induce a specific cellular clone to acquire different qualities, as for example a membrane antigen that would induce the immune response causing the dermatosis [6, 9]. Freemer et al. [10] described 2 cases of lichenoid chronic graft-vs-host disease occurring in a dermatomal distribution and suggested that the dermatomal distribution of their patients’ lesions were associated with HZV infection. In our patient the lichenoid lesions follow these Blaschko embryonal lines with a typical distribution. To our knowledge this is the first case of LDE that follows Blaschko lines and it must be differentiated from zosteriform LP.

References

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