Actas Dermosifiliogr. 2010;**101(10)**:891–903

ACTAS
Dermo-Sifiliográficas

Full English text available at
www.elsevier.es/ad

CASE AND RESEARCH LETTERS

Adult Blaschkitis (Lichen Striatus) in a Patient Treated with Adalimumab

Blaschkitis del adulto (liquen estriado) en paciente tratado con adalimumab

To the Editor:

Lichen striatus is an acquired inflammatory dermatosis that usually presents in children as papules arranged in a single band following the Baschko lines on an extremity. The disorder resolves slowly, leaving transient hypopigmentation, and rarely recurs. Histopathology findings indicate both lichenoid and spongiotic dermatitis. A variant of blaschkitis that occurs in adults is referred to as adult blaschkitis, acquired relapsing self-healing Blaschko dermatitis, or acquired Blaschko dermatitis. Characterized by papulovesicles grouped in multiple ipsilateral blaschkoid bands, adult blaschkitis typically affects the trunk. It resolves rapidly without sequelae, but relapses are frequent. Histopathology reveals a predominance of spongiotic dermatitis (Table 1).[1-3] Disagreement has arisen in recent years, given that cases have been reported in which there have been marked clinical and histopathological similarities between blaschkitis and lichen striatus.[3] This has led to the disorders being classified under the term *Blaschko linear acquired inflammatory skin eruption*, with adult blaschkitis included under lichen striatus, or with both these considered as opposite poles of the same disease.[2,4] The etiology of these dermatoses is unknown, although they have been associated with a personal or family history of atopy. Triggering factors have occasionally been identified, such as infections (eg, varicella), vaccines, pregnancy, stress, drugs (eg, metronidazole), skin trauma, and contact dermatitis.[3,5] We describe the case of a 44-year old man with plaque psoriasis, who developed adult blaschkitis 2 months after commencing treatment with adalimumab.

The patient, with a past history of gonarthrosis and tonsillectomy, had been diagnosed with plaque psoriasis 13 years earlier. The psoriasis had been treated with methotrexate and phototherapy (psoralen plus UV-A radiation and narrowband UV-B radiation). After an exacerbation of the psoriasis (a psoriasis area and severity index (PASI) score of 11.60), subcutaneous treatment was commenced with adalimumab in accordance with the standard protocol. Follow-up at 3 months showed an improvement in the psoriasis lesions (PASI score, 6.40). Several bands of slanted S-shaped erythematous papules were also observed in the right abdominal region, on the right flank and right buttock, and in the proximal area of the right thigh, following the Blaschko lines and sharply interrupted midline (Figure 1). The patient reported that the skin rash had appeared gradually over the previous 3 weeks and was pruritic. He had no personal or family history of atopic dermatitis.

Biopsy revealed a predominantly lymphocytic inflammatory infiltrate in the dermis, affecting small patches in the papillary dermis and upper part of the mid dermis, and most concentrated around the follicles. The epidermis was normal except for discrete spongiosis (Figure 2).

Adalimumab is a recombinant human monoclonal antibody for immunoglobulin G1 isotype which inhibits tumor necrosis factor (TNF) α. It is effective in the treatment of moderate to severe plaque psoriasis. Like other TNF-α inhibitors, it can, paradoxically, cause inflammatory skin disorders, particularly psoriasis or psoriasiform rash.[6] Eruptions with lichenoid histopathology have also been described, but

Table 1 Differential Diagnosis Between Blaschkitis and Lichen Striatus

Blaschkitis	Lichen Striatus
Rare	More common
Adults (mean age, 40 y)	Children (mean age, 3 y)
Both sexes equally likely to be affected	Females more likely to be affected
Predominance in the trunk	Predominance in the extremities
Pruritus	Asymptomatic
Papules and vesicles	Papules, rarely vesicles
Multiple lines	One or few lines
Unilateral or bilateral lesions	Unilateral lesions
Resolve rapidly (less than 2 months)	Resolve slowly (3 to 24 months)
Relapse is likely	Relapse is rare
No sequelae	Transient hypopigmented bands
Histological findings of spongiotisis	Lichenoid and/or spongiotic findings

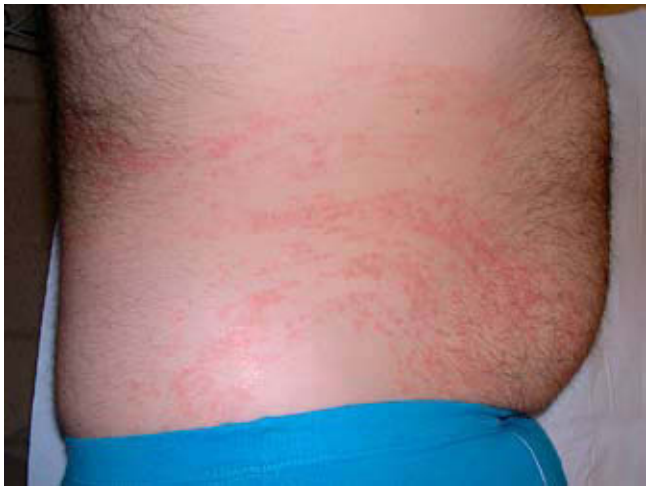

Figure 1 Bands of erythematous papules with a slanted-S morphology following the Blaschko lines on the right flank.

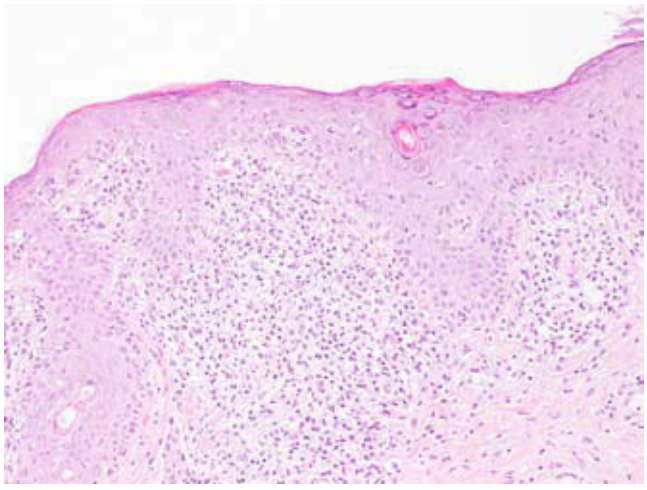

Figure 2 Epidermis with discrete spongiosis and a lymphocytic inflammatory infiltrate in the papillary dermis (hematoxylin-eosin, original magnification ×200).

with variable manifestations: *a*) lichen planus-like; *b*) nonspecific macular or papular morphology; or *c*) psoriasis-like. The skin lesions typically appear in the early phase of treatment (3 weeks to 16 months). The underlying physiopathology for this disorder is not well understood. It has been suggested that TNF-α inhibition results in aberrant tissue expression of interferon-α in susceptible patients.[7] In this case the differential diagnosis should include psoriasis and lichen planus. Both these conditions can be triggered by drugs that inhibit TNF-α, and can present as an acquired Blaschko-linear inflammatory dermatosis or as a combined segmental manifestation of the 2 disorders.[1,8] The existence of cases of simultaneous lichen planus and lichen striatus may raise occasional diagnostic doubt.[9] Sfia et al[10] recently described a patient with severe chronic plaque psoriasis who responded well to infliximab except in areas where the psoriatic lesions were distributed along the Blaschko lines.

References

1. Grosshans EM. Acquired blaschkolinear dermatoses. Am J Med Genet. 1999;85:334-7.
2. Monteagudo B, Paredes C, Vázquez M, Pestoni C, Used MM, Labandeira J, et al. Liquen estriado múltiple unilateral en un adulto. Actas Dermosifiliogr. 2005;96:475-6.
3. Keegan BR, Kamino H, Fangman W, Shin HT, Ordow SJ, Schaffer JV. "Pediatric blaschkitis": expanding the spectrum of childhood acquired blaschko-linear dermatoses. Pediatr Dermatol. 2007;24:621-7.
4. Tejera-Vaquerizo A, Ruiz-Molina I, Solís-García E, Moreno-Giménez JC. Blaschkitis del adulto (liquen estriado) tratado de forma exitosa con tacrolimus tópico. Actas Dermosifiliogr. 2009;100:631-2.
5. Brinkmeier T, Herbst RA, Schaller J, Kuegler K, Pirker C, Beiteke U, et al. Drug-induced blaschkitis. Acta Derm Venereol. 2004;84:314-5.
6. Monteagudo-Sánchez B, Cabanillas M, Ortiz-Marín S, Gallego-Ojea JC. Psoriasis pustulosa inducida por infliximab en una paciente con enfermedad de Crohn. Gastroenterol Hepatol. 2009;32:175-6.
7. Asarch A, Gottlieb AB, Lee J, Masterpol KS, Scheinman PL, Stadecker MJ, et al. Lichen planus-like eruptions: an emerging side effect of tumor necrosis factor-a antagonists. J Am Acad Dermatol. 2009;61:104-11.
8. Happle R. Superimposed segmental manifestation of both rare and common cutaneous disorders: a new paradigm. Actas Dermosifiliogr. 2009;100(Suppl. 1):77-85.
9. Pulgar F, Rivera R, Rodríguez-Peralto JL, Vanaclocha F. Liquen plano y liquen estriado ¿polos opuestos de un mismo espectro? Actas Dermosifiliogr. 2009;100:915-7.
10. Sfia M, Roth-Mall B, Tortel MC, Guillaume JC, Cribier B. L102®). Ann Dermatol Venereol. 2009;136:898-903.

B. Monteagudo,[a,*] M. Cabanillas,[a] Ó. Suárez-Amor,[a] A. Ramírez-Santos,[a] J.C. Álvarez,[b] C. de Las Heras[a]

[a] *Servicio de Dermatología, Complejo Hospitalario Arquitecto Marcide-Novoa Santos, Ferrol, A Coruña, Spain*
[b] *Servicio de Anatomía Patológica, Complejo Hospitalario Arquitecto Marcide-Novoa Santos, Ferrol, A Coruña, Spain*

*Corresponding author.
E-mail address: benims@hotmail.com (B. Monteagudo).