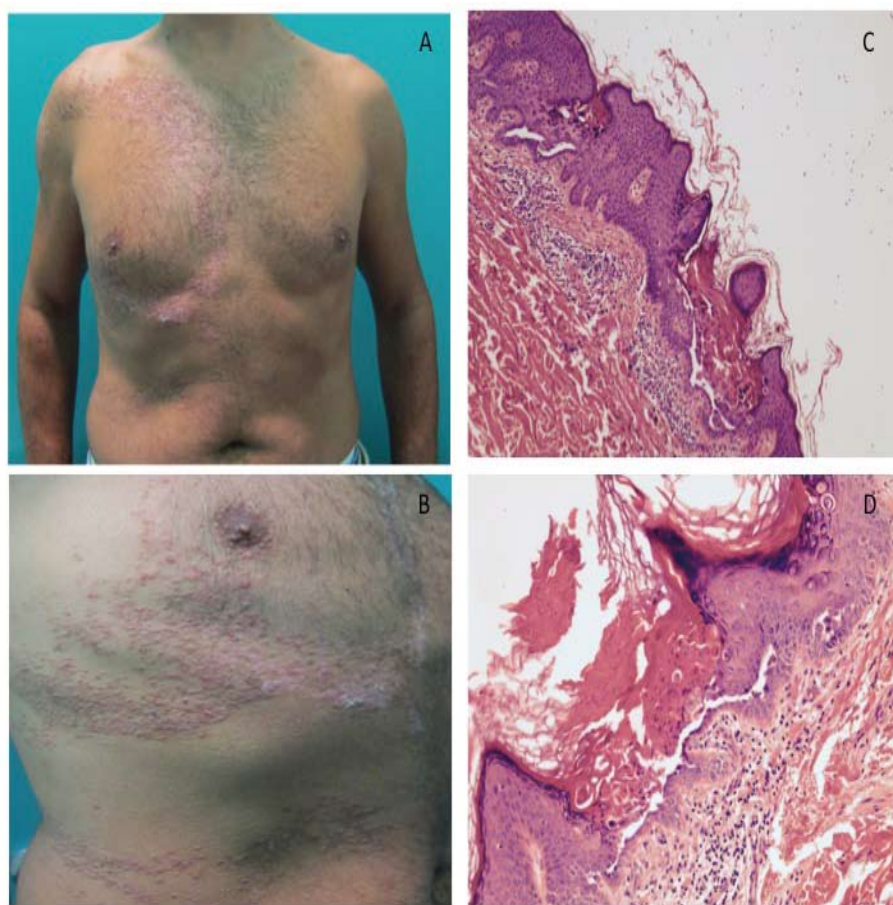


## Monolateral Grover's Disease with Blaschkoid Distribution

Dear Editor,

Grover's disease, also known as transient acantholytic dermatosis, is an idiopathic and acquired pruritic eruption of small vesicles and erythematous papules, classically on the central chest. The pathogenesis is not clearly defined, although heat sweating and occlusion have been interpreted as predisposing factors. We describe a case of monolateral acantholytic erup-

tion with blaschkoid distribution in a patient treated with an orthopedic bandage for a shoulder injury. A 53-years-old man was referred to the dermatologic department because of an acute eruption of pruritic, discrete, pinkish grey papulovesicles, developed on the right side of the trunk 14 days after the positioning of an orthopedic bandage for a shoulder injury.



**Figure 1.** Clinical and histopathological aspects. (a) Acantholytic eruption following a multilinear distribution along Blaschko lines. (b) Pruritic, discrete, pinkish grey papulovesicles. (c) Hematoxylin and eosin  $\times 20$ : Acantholytic dyskeratosis with a suprabasal cleft. (d) Hematoxylin and eosin  $\times 20$ : A basket weave epidermic pattern with hyperkeratosis and a perivascular lymphocytic infiltration in the upper dermis.

This skin eruption followed a multilinear distribution along Blaschko lines (Figure 1, a, b). The medical history was unremarkable. The patient's family history was negative for similar dermatosis. Histopathological analysis showed acantholytic dyskeratosis with suprabasal cleft. A basket weave epidermic pattern with hyperkeratosis was observed, with a perivascular lymphocytic infiltration in the upper dermis (Figure 1, c, d). Given the clinical and histopathological features, a diagnosis of monolateral Grover's disease was established. The patient was treated with topical mometasone furoate 0.1% cream for 3 weeks with clinical improvement. Monolateral blaschkoid distribution in Grover's disease is extremely rare, with only 1 case reported in the literature (1). Two cases of zosteriform distribution have been described (2,3). The exact pathogenesis and the differential diagnosis with linear Darier's disease were the main topics of discussion, while the pathogenesis is still in debate. In our case, it appears that a shoulder bandage can cause an occlusive environment that can elicit the disease (4). Similar conditions were present in a previously described cases of bedridden patients (1). Some authors have postulated that such conditions may act as precipitating factors on a genetically predisposed epidermis (1). In monolateral and localized cases, postzygotic somatic mutations along Blaschko's lines or in dermatomes could be present.

It is also important to distinguish this monolateral and blaschkoid Grover's disease from other acantholytic dermatoses. In this case, the differential diagnosis with an eruptive linear Darier's disease is very difficult (5). Histopathological analysis is not useful. Both monolateral and ordinary variants of Darier's disease can be elicited by environmental factors such as heat, sweating, or occlusion. The diagnosis of monolateral blaschkoid Grover's disease was preferred due to the patient's anamnesis (late-onset and no familiar history of similar dermatosis) and the clinical features (sparing of the head, extremities, and flexures). Since only additional genetic analysis could definitively resolve this question, it was performed. No mutation in genes coding the Ca<sup>2+</sup> pump using genomic DNA from the patient's white blood cells or from a skin biopsy was found. A clinical anamnestic and genetic correlation is always crucial in these rare and unique acantholytic dermatoses.

## References:

1. Fantini F, Kovacs E, Scarabello A. Unilateral transient acantholytic dermatosis (Grover's disease) along Blaschko lines. *J Am Acad Dermatol.* 2002;47:319-20.
2. Lee HJ, Jung KE, Kim HS, Lee JY, Kim HO, Park YM. Zosteriform transient acantholytic dermatosis. *J Dermatol.* 2014;41:104-5.
3. William A, Lis MD, Arthur L. Zosteriform transient acantholytic dermatosis. *J Am Acad Dermatol.* 1993;29:797-8.
4. Quarterman MJ, Davis LS. Transient acantholytic dermatosis in a postoperative febrile patient. *Int J Dermatol.* 1995;34:113.
5. Happle R. Linear Darier's or Grover's disease? *J Am Acad Dermatol.* 2003;49:1200-1.

**Nicola di Meo, Bruno Ulessi, Sara Trevisini,  
Cecilia Noal, Katuscia Nan, Silvia Vichi,  
Giusto Trevisan**

*<sup>1</sup>Dermatology Department,  
University of Trieste, Trieste, Italy*

## Corresponding author:

Nicola di Meo, MD  
Dermatology Department, University of Trieste  
Ospedale Maggiore di Trieste, Piazza Ospedale 1  
IV Piano Palazzina Infettivi  
34100 Trieste  
Italy  
*nickdimeo@libero.it*

Received: August 11, 2016

Accepted: November 15, 2017