Case for diagnosis*

Caso para diagnóstico

Amanda Nascimento Cavalleiro de Macedo Mota[1] Natalia Solon Nery[2]
Carlos Baptista Barcaui[3]

DOI: http://dx.doi.org/10.1590/abd1806-4841.20132114

CASE REPORT

70-years-old white female presented a five-year evolution of recurrent and asymptomatic tense blisters with serous content on the second and third left fingers, which disappeared without scarring. She denied triggering factors such as trauma. Comorbidities, hypertension and type 2 diabetes mellitus for 20 years treated irregularly with antihypertensives and oral hypoglycemics.

We found on examination of the patient a tense blister with serous content, 2 cm in diameter, located on the distal phalanx of the second left finger (Figures 1 and 2). There was evidence of distal hypoesthesia on the hands and feet associated with normal peripheral pulses. No signs of local inflammation.

Histologic examination revealed intraepidermal cleavage, reepithelialization and few inflammatory cells (Figure 3).

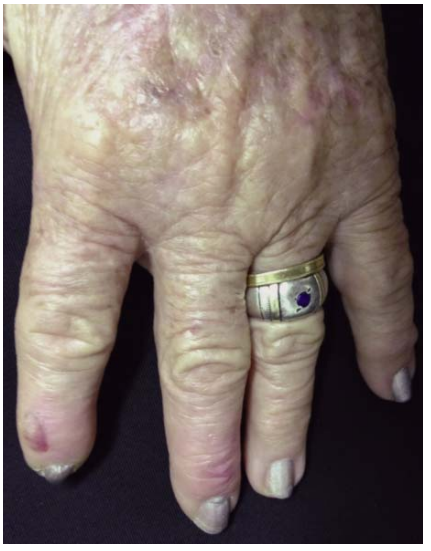

FIGURE 1: Presence of tense bubble in the distal phalanx of the second left finger. Absence of cicatricial lesion on the third finger

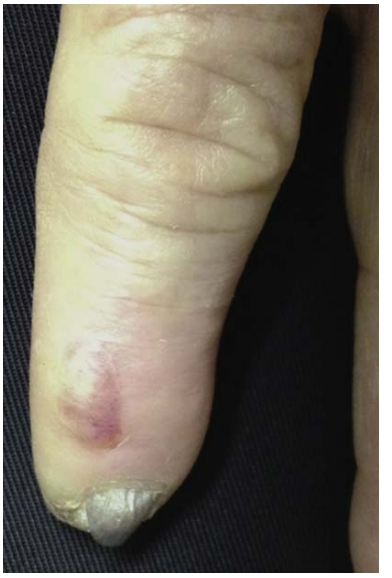

FIGURE 2: Detail of the blister

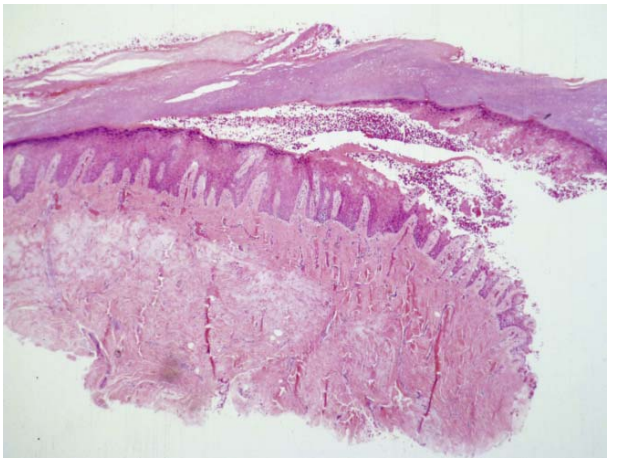

FIGURE 3: Intraepidermal cleavage with few inflammatory cells

Received on 07.09.2012.
Approved by the Advisory Board and accepted for publication on 22.10.2012.
* Study conducted at the Pedro Ernesto University Hospital - Rio de Janeiro State University (HUPE-UERJ) - Rio de Janeiro (RJ), Brazil.
Conflict of interest: None
Financial funding: None

[1] Resident in Dermatology at Pedro Ernesto University Hospital - Rio de Janeiro State University (HUPE-UERJ) - Rio de Janeiro (RJ), Brazil.
[2] Resident in Dermatology at Pedro Ernesto University Hospital - Rio de Janeiro State University (HUPE-UERJ) - Rio de Janeiro (RJ), Brazil.
[3] Doctorate in Dermatology awarded by the University of São Paulo (USP) - Professor of Dermatology at Rio de Janeiro State University (UERJ) - Rio de Janeiro (RJ), Brazil.

DISCUSSION

Spontaneous blisters are a specific type of skin lesion occurring in patients with diabetes mellitus.[1,2] This type of lesion in diabetic patients was first documented by Kramer, 1930,[3] later described by Rocca and Pereyra in 1963.[4] The term bullosis diabeticorum was first used in 1967.[5] It is a rare disease, with approximately 112 cases reported in the literature.[1] It occurs in both genders, affecting people from seventeen to eighty years old, especially in patients with long-term diabetes mellitus who generally exhibit peripheral neuropathy[5,1] Other causes include microangiopathy, nephropathy, disorders of the metabolism of calcium, magnesium and carbohydrates.[1,6] The etiology of the disorder however remains nuclear.[2]

It is characterized clinically by tense asymptomatic blisters containing serous and sterile fluid which appear spontaneously on normal skin[5,7]. No history of previous trauma, and most cases recur.[1,2,7] It can occur at a variety of anatomical sites, with the acral region, especially the feet, being the most common location.[1,5] Its evolution is self-limited and usually ceases within two to five weeks, without scarring.[1,2]

Diagnosis is mainly clinical. Histopathological examination is often inconclusive. The cleavage can be intraepidermal or subepidermal, revealing different events or pathogenic developmental stages.[1,2,6] In most reported cases there is intraepidermal cleavage and no acantholysis.[1] Direct and indirect immunofluorescence are negative.[2] No specific laboratory test exists for diagnosing bullosis diabeticorum.[1]

In these circumstances it is necessary to exclude other possible causes of bullous diseases. Blisters caused by bullous pemphigoid may be similar, both clinically and histologically. Differential diagnoses can include *epidermolysis bullosa* acquisita (EBA), porphyria cutanea tarda (PCT), erythema multiforme or drug eruption. In the event of diagnostic uncertainty one should proceed to biopsy for histologic analysis of the bubble region and the perilesional zone to perform immunofluorescence.[1] Additional tests are not essential.

Treatment is conservative. The blister must be kept intact in order to cover the lesion and prevent secondary infection.[1] The patient should be instructed to keep the wound clean and protected. Topical therapy is not required.

The above reports a typical case of bullosis diabeticorum, a rare bullous disease of unknown etiology, in patients with long-term diabetes mellitus. It is important to emphasize the probable underdiagnosis of this disorder due to the absence of a specific diagnostic test, and as a result correct recognition of the disease is important. Proper management helps to reduce morbidity in diabetic patients and prevents the formation of chronic ulcers.[8] ❑

Abstract: We present a case of bullosis diabeticorum. It is a rare disorder, probably underdiagnosed, associated with long-term diabetes mellitus. Its etiology remains unclear. It is characterized by tense blisters, with serous content, recurrent and spontaneous on normal skin especially in the acral regions. Displays self-limiting course. No specific laboratory tests for diagnosis of this bullous disease exist. Clinical and conservative management to prevent secondary infection reduces morbidity in diabetic patients.
Keywords: Diabetes complications; Diabetes mellitus; Diabetes mellitus type 1; Diabetes mellitus type 2; Skin diseases, vesiculobullous

Resumo: Apresenta-se um caso de bulose diabeticorum, que consiste em uma desordem rara de etiologia ainda incerta, provavelmente subdiagnosticada, associada ao diabetes mellitus de longa evolução. Caracteriza-se por bolhas tensas, recorrentes, de conteúdo seroso e aparecimento espontâneo sobre pele pouco inflamada, especialmente nas regiões acrais, que evolui com curso autolimitado. Não há testes laboratoriais específicos para o diagnóstico desta bulose. O reconhecimento clínico e o manejo conservador para evitar infecção secundária reduz a morbidade nos pacientes diabéticos.
Palavras-chave: Complicações do diabetes; Dermatopatias vesiculobolhosas; Diabetes mellitus; Diabetes mellitus tipo 1; Diabetes mellitus tipo 2

REFERENCES

1. Lipsky BA, Baker PD, Ahroni JH. Diabetic bullae: 12 cases of a purportedly rare cutaneous disorder. Int J Dermatol. 2000;39:196-200.
2. Bernstein JE, Medenica M, Soltani K, Greim SF. Bullous eruption of diabetes mellitus. Arch Dermatol. 1979;115:324-5.
3. Kramer DW. Early or warning signs of impending gangrene in diabetes mellitus. Med J Rec. 1930;132: 338-42.
4. Rocca FF, Pereyra E. Phlyctenar lesions in the feet of diabetic patients. Diabetes 1963;12:220-2.
5. Oursler JR, Goldblum OM. Blistering eruption in a diabetic. Arch Dermatol. 1991;127:247-50.
6. Cantwell AR Jr, Martz W. Idiopathic bullae in diabetics. Bullosis diabeticorum. Arch Dermatol. 1967;96:42-4.
7. Mendes AL, Haddad Jr V. Case for diagnosis. Bullosis Diabeticorum. An Bras Dermatol. 2007;82:94-6.
8. Larsen K, Jensen T, Karlsmark T, Holstein PE. Incidence of bullosis diabeticorum - a controversial cause of chronic foot ulceration. Int Wound J. 2008;5:591-6.

MAILING ADDRESS:
Amanda Nascimento Cavalleiro de Macedo Mota
Boulevard 28 de setembro, 77 - Vila Isabel
20551-030 - Rio de Janeiro - RJ
Brazil
E-mail: amanda_mota@hotmail.com

How to cite this article: Mota ANCM, Nery NS, Barcaui CB. Case for diagnosis. Bullosis diabeticorum. An Bras Dermatol. 2013;88(4):652-4.