CLINICAL CASE

Leprosy simulating lichenoid eruption: case report and literature review

Hanseníase simulando erupção liquenóide: relato de caso e revisão de literatura

Antônio Renê Diógenes de Sousa [1]
Carolina Oliveira Costa [2]
Hercilia Maria Carvalho Queiroz [3]
Paulo Eduardo de Sá Gonçalves [4]
Heitor de Sá Gonçalves [5]

Abstract: Leprosy is associated with the occurrence of various skin lesions such as macules, papules, plaques, nodules, and even diffused infiltration, depending on the patient's immune response. Its clinical presentation is often different from the usual pattern, leading to confusion in diagnosis. The present article describes a rare case of leprosy simulating lichenoid eruption and explores different aspects of the clinical manifestations, diagnosis, and treatment of this nosologic entity.
Keywords: Diagnosis; Leprosy; Mycobacterium leprae

Resumo: A hanseníase relaciona-se à formação de grande variedade de lesões cutâneas, desde manchas, pápulas, placas e nódulos, até infiltração difusa, dependendo da resposta imune do indivíduo. A apresentação clínica foge, muitas vezes, do padrão habitual, fazendo com que especialistas confundam o diagnóstico. O artigo descreve um caso raro de hanseníase, simulando erupção liquenoide, abordando os diferentes aspectos das manifestações clínicas, do diagnóstico e do tratamento desta entidade nosológica.
Palavras-chave: Diagnóstico; Hanseníase; Mycobacterium leprae

INTRODUCTION

Leprosy is a granulomatous infectious disease of the skin and peripheral nerves, of chronic evolution, caused by *Mycobacterium leprae,* an alcohol acid-fast bacillus of low pathogenicity and high infectivity. The transmission of the disease occurs through direct contact with non-treated infected patients or those that have received inadequate treatment.[1]

According to the World Health Organization, the continents with the highest incidence of leprosy are Africa, South America and Southeast Asia. A total of 296,499 new cases of the disease were diagnosed worldwide in 2005. Brazil has a high number of registered cases and of recently diagnosed cases among the six endemic countries that accounted for 23% of the new cases diagnosed in 2005 and 24% of the cases recorded at the beginning of 2006.[2]

Leprosy is an endemic disease in Brazil. It is also a serious public health issue due to the possibility of causing permanent physical disability and due to its high endemic levels with diverse distribution in the different regions of the country.[3] These factors complicate the epidemiologic control of the disease.

Since 1953, classifications of leprosy in relation to its different clinical manifestations, histopathological findings, and the patient's immune response level have been described.[4] However, to establish a relationship between diagnosis and treatment, the World Health Organization recommended that patients be classified into paucibacillary (PB), who have between one and five cutaneous lesions and negative bacilloscopy, and multibacillary (MB), who have more than five lesions, independently of bacilloscopy.[5]

This work presents a rare case of leprosy simulating lichenoid eruption evaluated at Dona Libania Sanitary Dermatology Reference Center, with literature review and approach of different aspects of the

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[1] Dermatologist at Dona Libania Dermatology Center. Coordinator of the Dermatology Postgraduate Program at Dona Libania Dermatology Center- Fortaleza (CE), Brazil.
[2] Student of Medicine at the State University of Ceara. Medical Intern at Dona Libania Dermatology Center- Fortaleza (CE), Brazil.
[3] Student of Medicine at the State University of Ceara. Medical Intern at Dona Libania Dermatology Center- Fortaleza (CE), Brazil.
[4] Resident Physician in Dermatology at Dona Libania Dermatology Center- Fortaleza (CE), Brazil.
[5] Dermatologist at Dona Libania Dermatology Center, Fortaleza-CE. Director of Dona Libania Dermatology Center- Fortaleza (CE), Brazil.

clinical manifestations, diagnosis, and treatment of the disease.

CASE REPORT

Female patient, 39 years old, brown, native of Fortaleza, was seen at a health center complaining about "wounds" in her body that had appeared two years before and started as small "lumps" and disseminated pruritus. She was treated with dexchlorpheniramine and betamethasone cream with gentamicin, with partial improvement of her condition. After treatment, the patient became pregnant and relapsed with the appearance of many disseminated pruritic lesions. She then used benzyl benzoate, itraconazole, dexchlorpheniramine, and betamethasone cream with gentamicin, without clinical improvement. In November 2006, the patient was referred to Dona Libania Sanitary Dermatology Reference Center for diagnosis clarification.

Dermatologic examination revealed many violet-colored papular lesions in her trunk and extremities. Some of these lesions were erythematous and some were excoriated due to intense pruritus (Figure 1). The following were suggested as diagnostic hypotheses: syphilis, lichen planus, and leprosy. Total blood count, VDRL test, hepatic and renal function tests, bacilloscopy, and histopathological examination of the right and left thighs were performed. The first three exams did not show pathological alterations. The bacilloscopy index was 4.75. Histopathological examination of both thighs showed chronic perivascular and periadnexal lymphohistiocytic dermatitis (Figure 2). Ziehl-Nielsen stain revealed numerous bacilli and globi in the inflammatory process (Figure 3), constituting borderline leprosy. The condition was clinically characterized as virchowian borderline leprosy.

Polychemotherapy with dapsone, clofazimine and rifampicin was initiated as recommended by the World Health Organization. The patient showed partial regression of the clinical condition after the fourth dose of treatment. There was no hansenic reaction.

DISCUSSION

Leprosy can have several clinical manifestations and its diagnosis is primarily based on the appearance of skin lesions with loss of sensitivity (thermal, pain, and tactile), neural thickening, and positive bacilloscopy.[6] In the skin the disease presents with a polymorphism of lesions that vary from macules, papules, plaques, nodules, to even diffuse infiltration, depending on the patient's immune response.

According to the case report, the patient showed pruritic violet-colored papular lesions in the trunk and extremities, with lichenoid aspect. These are not characteristic of leprosy. The diagnosis of borderline leprosy was confirmed by means of bacilloscopy and histopathological examination. This shows the variety of clinical presentations of the disease.

The expression 'lichenoid eruption' refers to papular lesions present in specific skin disorders, of which lichen planus is the prototype. Papules are shiny, flat, polygonal, and of different sizes. They occur in groups, creating a pattern similar to that of lichen growing in rocks. Histopathological examination showed hyperkeratosis, focal thickening of the granulous layer, saw-tooth acanthosis, hydropic degeneration of the basal cell layer, and band-like lymphocytic infiltrate in the papillary dermis. In the lower dermis, degenerated keratinocytes, called colloid bodies, were observed. [7,8]

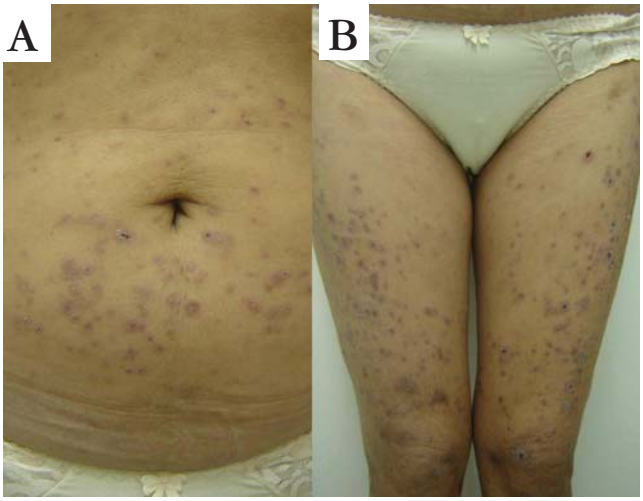

Figure 1: Presence of violet-colored erythematous papules with a few excoriations in (A) trunk and (B) lower extremities

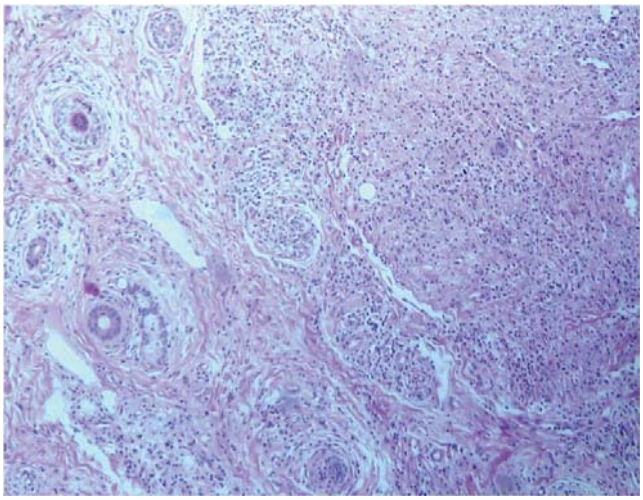

Figure 2: Presence of chronic perivascular and periadnexal lymphohystiocytic dermatitis (Hematoxylin-Eosin. Original magnification 40x)

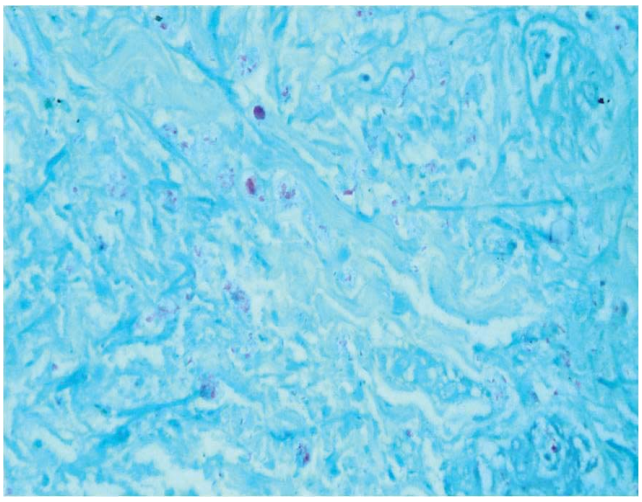

FIGURE 3: Presence of numerous bacilli and globi in the inflammatory process (Ziehl-Nielsen. Original magnification 100 X)

Differentiation betweeb the various causes of lichenoid lesions is a challenge. Differential diagnosis can be often narrowed when the diverse aspects of lichenoid eruptions are considered. A careful clinical examination should evaluate data about the onset of symptoms, distribution and color of lesions, presence or absence of pruritus, and Köebner's phenomenon. Histopathological examination can confirm the diagnosis. Among the disorders that may usually cause lichenoid eruptions are: lichen planus, drug-induced lichenoid eruption, lichen nitidus, lichen scrofulosorum, lichen sclerosus et atrophicus, lichen striatus, lichenoid pityriasis, exudative discoid and lichenoid dermatitis, Gianotti-Crosti Syndrome[8,9], graft-host disorder, and lichen simplex chronicus.

The patient initially showed clinical symptoms suggestive of lichenoid eruption, of which pruritus was the most expressive sign. Anamnesis and dermatologic examination of lesions were not necessary for diagnostic differentiation; however, results from bacilloscopy and histopathological examination confirmed the diagnosis of virchowian borderline leprosy. The therapeutic response was effective after the regimen for multibacillary patients recommended by the Ministry of Health. Partial regression of clinical symptoms after the forth dose of treatment was observed, and there was no hansenic reaction.

A poor clinical response to the treatment of skin disorders should alert the dermatologist to several possibilities that may be associated with therapeutic failure, disease of unknown cause, wrong choice of medication, lack of patient's adhesion to the treatment or presence of pathogens that cause infectious complications. In the above-mentioned case, the initial clinical manifestation of the disorder was characterized by lichenoid eruptions with intense pruritus, which led to diagnosis delay and inadequate medical conducts at the onset of the disease. ❑

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MAILING ADDRESS / ENDEREÇO PARA CORRESPONDÊNCIA:
Carolina Oliveira Costa
Rua Osvaldo Cruz, 635, apt. 202 Meireles,
60125150 Fortaleza, CE.
Tel.fax: 85 3264 3123 85 3366 7604.

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