Official Journal of the Brazilian Association of Infection Control and Hospital Epidemiology

Journal of INFECTION CONTROL

ISSN 2316-5324 | Ano X . Volume 10 . Número 01 . Jan/Mar . 2021

> ACESSE AQUI A REVISTA ONLINE

CASE REPORT

Erythema Induratum of Bazin: report of an uncommon case of tuberculosis

Eritema Induratum de Bazin: relato de um caso incomum de tuberculose

Eritema indurado de Bazin: reporte de un caso poco común de tuberculosis

Alba Angélica Nunes Mouta,[1] Francisco Eduardo Paiva Silva e Silva,[1] Leandro Souza Silva,[2] Augusto César Beltrão da Silva,[1] Camila Maila Fontinele Beltrão,[1] Fernando Aguiar Luz,[1] Renata Paula Lima Beltrão.[1]

[1]*Universidade Federal do Delta do Parnaíba (UFDPAR), Parnaíba, PI, Brasil.*

[2]*Universidade Federal do Maranhão (UFMA), São Luís, MA, Brasil.*

Recebido em: *22/02/2021*

Aceito em: *14/03/2021*

Disponível online: *22/04/2021*

Autor correspondente:

Alba Angélica Nunes Mouta

angelicanmouta@gmail.com

ABSTRACT

Tuberculosis is an endemic infectious disease in Brazil, and its most common form of presentation is the pulmonary form; however, there are several other less frequent forms of presentation that end up having a more difficult diagnosis. Cutaneous forms, for example, represent about 1-2% of extra-pulmonary occurrences. As Brazil has high rates of tuberculosis, it is necessary that health professionals are aware of less frequent forms of the disease. We present a clinical case of a 32-years-old female patient with an unusual form of cutaneous tuberculosis, Erythema Induratum of Bazin.

Key-words: *Tuberculosis. Erythema Induratum. Tuberculosis, Cutaneous.*

RESUMO

A tuberculose é uma doença infectocontagiosa endêmica no Brasil e sua forma mais comum de apresentação é a forma pulmonar; no entanto, existem diversas outras formas de apresentação, que por serem menos comuns acabam tendo o diagnóstico mais difícil. As formas cutâneas, por exemplo, representam cerca de 1-2% das formas extra-pulmonares. Como o Brasil possui altos índices de tuberculose, faz-se necessário que os profissionais de saúde tenham conhecimento de formas menos frequentes da doença. O artigo em questão apresenta um caso clínico de uma paciente com uma forma pouco comum de tuberculose cutânea, o eritema indurado de Bazin.

Palavras-chave: *tuberculose. Eritema nodoso, tuberculose cutânea.*

RESUMEN

La tuberculosis es una enfermedad infecciosa endémica en Brasil y su forma de presentación más común es la forma pulmonar; sin embargo, existen varias otras formas de presentación, que por ser menos frecuentes acaban dificultando el diagnóstico. Las formas cutáneas, por ejemplo, representan alrededor del 1-2% de las formas extrapulmonares. Como Brasil tiene altas tasas de tuberculosis, es necesario que los profesionales de la salud sean conscientes de las formas menos frecuentes de la enfermedad. El artículo en cuestión presenta un caso clínico de un paciente con una forma poco común de tuberculosis cutánea, el eritema indurado de Bazin.

Palabras clave: *tuberculosis. Eritema nudoso, tuberculosis cutánea.*

INTRODUCTION

The occurrences and cutaneous presentations of tuberculosis (TB) are uncommon and represent 1-2% of the extra-pulmonary conditions of the disease. Specifically, Erythema Induratum of Bazin (EIB) is classified as a tuberculid, a hypersensibility reaction to *Micobacterium tuberculosis*. It is characterized by recurrent and painful panniculitis, which begins in the subcutaneous layer and extends to the most superficial layer of the skin, forming erythematous-violaceous plaques and nodules between 1 and 5 cm. In 30% of the cases, they progress to necrosis and ulceration. The most affected sites are the lower limbs, but they can also occur in other regions such as the face. It is usually bilateral and tends to heal and form atrophic hyperpigmented lesions.[1-3]

In general, EIB is present at a distance from the infectious focus, often silently, hindering the etiological recognition. The fact that tests for the diagnosis of extrapulmonary TB have less sensitivity and specificity when compared to pulmonary forms also contributes to the elucidation of the case.[3,4]

Brazil is among the 20 countries with the highest incidence of TB in the world, and for this reason, it most often deals with extrapulmonary forms of the disease. In 2016, the incidence of TB in Brazil was 69,509 cases, 68% in men and 81% concentrated in the 15 to 59 age group; however, analyzing only the cases of EIB, 90% occur in women, usually between 20 and 30 years old.[5,6]

CASE REPORT

The case described was selected from the follow-up patients at the Integrated Center for Medical Specialties (CIEM) - sponsored by the Piauí Research Support Foundation (FAPEPI). Female patient, 32 years old, goes to the dermatology clinic in May 2019, complaining of multiple painful erythematous subcutaneous nodules, with the presence of phlogistic signs, located in the lower limbs and trunk, beginning 2 weeks ago. She denies the presence of fever and lymphadenopathy. She reported using nimesulide and ibuprofen for 2 weeks for dental treatment. She denies diabetes, hypertension and allergies. Long-term smoker.

Among the suspicions of the case are: erythema nodosum related to medications, erythema nodosum related to leprosy reaction type II or other forms of panniculitis. The patient denied contact with people with TB and leprosy. Chest X-ray, Complete Blood Count and Prednisone were prescribed, 80 mg daily for 7 days, followed by 40 mg daily until return, and Meloxicam 7.5 mg, 1 tablet twice daily, also for 7 days.

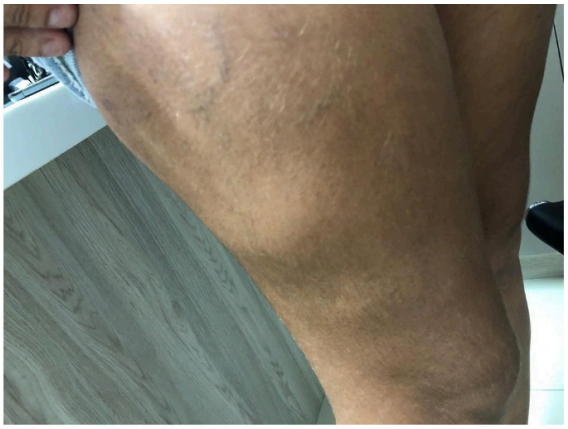

Figure 1. Indurated nodule in the lateral region of the right thigh.

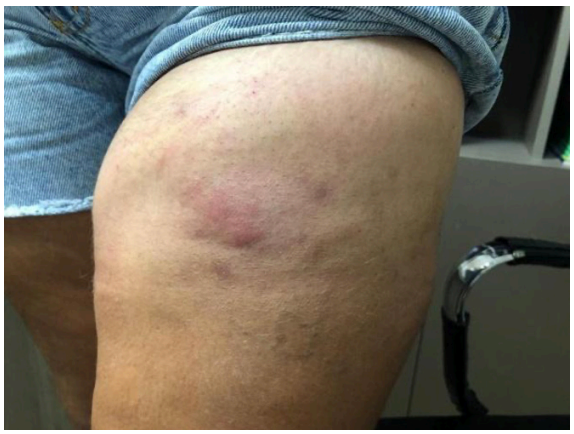

Figure 2. Erythematous nodules in the lateral region of the left thigh.

She returns after 2 months reporting an improvement in the condition after the start of corticoid administration, but the patient worsens the lesions after reducing the daily dose, after the suspension of meloxicam. The chest X-ray result showed peri-hilar bronchial infiltrate, and laboratory tests: hemoglobin 12.5 g / dL; leukocytes 13150 µL; lymphocytes 24 µL; platelets 336000 µL; blood glucose 90 mg / dL; urea 13 mg / dL; creatinine 0.69 mg / dL; alkaline phosphatase 67 U / L; glutamic oxalacetic transaminase 13 U / L; glutamic pyruvic transaminase 14. antinuclear factor and Anti-Streptolysin O negative. Due to the radiographic result, the possibility of a case of atypical pneumonia was raised and empirical treatment was started with azithromycin and levofloxacin. As the nodular lesions continued, a biopsy of the nodule in the left thigh was requested and prednisone was prescribed, 40 mg daily and meloxicam, 7.5 mg daily for 10 days.

The anatomopathological examination showed lobular and septal panniculitis with neutrophils and necrosis. The possible diagnoses raised were: EIB, neutrophilic lobular panniculitis or infectious panniculitis. The conduct after this result was ceftriaxone, 1g for 7 days, as an empirical treatment for staphylococci or streptococci, also tuberculin skin test (PPD) and serology for human immunodeficiency virus (HIV) were requested.

In the return visit, the patient brought the results of the exams, both were negative. She reported considerable health improvement; however, the patient presented a new tumor with fistulization of serous purulent material in the buttock. Culture and antibiogram were requested, with no bacterial growth.

After 3 months, she seeks care at an infectious disease clinic due to asthenia, dizziness, fever and difficulty walking, presenting nodules of hardened consistency in the right gluteal region. The patient remained hospitalized for 3 days, using symptomatic medications; also and a therapeutic test for tuberculosis was performed with COXCIP 4 (tablet containing combined dose of ethambutol, isoniazid, pyrazinamide and rifampicin), 3 tablets daily.

The patient showed clinical improvement with the progression of treatment. There was total involution of the existing lesions and no new lesions. The patient was discharged after 6 months of treatment, as recommended by the Ministry of Health.

DISCUSSION

EIB has nonspecific signs and symptoms that can lead to diagnostic confusion, with differential diagnoses being leprous nodular erythema type II, nodular vasculitis, polyarteritis nodosa, sarcoidosis, staphylococci and streptococci.[2]

The diagnosis of EIB is made by analyzing clinical findings, epidemiological factors and complementary exams[7]. Among the clinical factors, signs and symptoms, the patient's immune status, associated comorbidities and a history of allergic exacerbations should be analyzed; among epidemiological factors, observe the socioeconomic ones, contact with TB patients and the incidence of TB in the region where they live must be observed; the complementary exams to be performed would be the chest X-ray, PPD and skin biopsy for anatomopathological study.[3]

In addition to the shared characteristics with other pathologies, tuberculids are abaciliferous forms, so they represent a diagnostic challenge.[4] Panniculitis can be triggered by several causes, but when the genesis is due to TB, PPD can be positive or negative.[4,7] In the case under study, the patient presented negative PPD, which can be explained by the use of corticosteroids for a long time. PPD can be used to differentiate between nodular vasculitis, similar to EIB, but not caused by *M. tuberculosis*, positive examination closes the diagnosis in TB, but when negative, does not exclude EIB as a differential diagnosis.[7]

The resolution of the case takes time, even after the institution of specific treatment for tuberculosis. After the resolution of the case, atrophic scarring can occur.[2,8]

The typical anatomopathological examination of EIB shows septolobular panniculitis, which can be diffuse with primary neutrophilia, granulomatous appearance, vascular alterations, caseous necrosis, tuberculoid infiltrate, presence of giant cells of the foreign body type and granulomas.[1] The granulomatous infiltrate may contain lymphocytes, neutrophils, histiocytes, with the presence of associated vasculitis. To confirm the diagnosis, other etiologies should be excluded, through negative cultures.[4,9]

It can be difficult to reach a diagnosis of cutaneous TB due to the great morphological variety of the lesions; however, the diagnosis can be made based on clinical history, physical examination, histopathology and laboratory tests. It is recommended that HIV serology be performed on patients with cutaneous TB forms.[8,9]

More frequent in women, EIB presents itself as painless violaceous nodules, with a tendency to central ulceration. In women, association with active lung disease is common.[8]

The histology frequently found in these cases is lobular panniculitis, adipose tissue necrosis, vasculitis and granuloma. Panniculitis has multiple etiologies and the prognosis varies widely, and it is often difficult to differentiate the various etiological forms.[8,10]

CONCLUSION

Brazil has high rates of tuberculosis; therefore, it is necessary to recognize extrapulmonary forms by health professionals. Especially cutaneous forms such as EIB, which is a pathology that leads to a decrease in the quality of life of patients.

REFERENCES

1. *Daher EF, Silva Júnior GB, Pinheiro HCF, et al. Erythema induratum of bazin and renal tuberculosis: report of an association. Rev. Inst. Med. trop. S. Paulo 2020;46(5):295-298.*
2. *Barbosa T, Ramos A, Senra V, et al. Eritema Induratum de Bazin a propósito de caso clínico. revista do hospital de crianças maria pia ano 2005;14(4).*
3. *Brandão Neto RA, Carvalho JF. Erythema induratum of Bazin associated with Addison's disease: first description. Sao Paulo Med J. 2012; 130(6):405-8.*
4. *Barbosa NA, Dinato SLM, Polito DS, et al. Tubercúlide pápulo-necrótica e eritema indurado de bazin pós-infliximabe. Anais do 74o Congresso da Sociedade Brasileira de Dermatologia. 2019.*
5. *CAMASMIE HR, LIMA, RB, AGUIAR FC, et al. Relato da ocorrência simultânea de escrofuloderma, eritema indurado de Bazin e tuberculide pápulo-necrótica em paciente imunocompetente. Medicina (Ribeirão Preto, Online.) 2018;51(4):291-8.*
6. *Ministério da Saúde (Br). Secretaria de Vigilância em Saúde, Departamento de Vigilância das Doenças Transmissíveis. Panorama da tuberculose no Brasil: diagnóstico situacional a partir de indicadores epidemiológicos e operacionais [recurso eletrônico]. Brasília: Ministério da Saúde, 2018.*
7. *Menegheti GG, Tavares WD, Nassif PW, et al. Reação em cadeia da polimerase como determinante para o diagnóstico de tuberculose cutânea. Rev Soc Bras Clin Med. 2018; 16(2):116-8.*
8. *Concha MR. et al. Tuberculosis cutánea: reporte de dos casos y revisión de la literatura. Rev Chil Infect 2011;28(3):262-268*
9. *Mann D, Galhardo MCG, Cavalcante SC. Evolução clínica e terapêutica dos pacientes com tuberculose cutânea atendidos no instituto nacional de infectologia evandro chagas, fiocruz – RJ, entre 2000 e 2016. Dissertação para obtenção de Mestre em Ciências da Saúde. Fundação Oswaldo Cruz. Instituto nacional de infectologia evandro chagas. Mestrado em pesquisa clínica em doenças infecciosas.*
10. *Cuesta JAC, Pastor MV, Rubio AA. Eritema nudoso y otras paniculitis. Rev. Sociedad Val. Reuma. 2009,3(1):17-*