

CASE REPORT

# Negligence in the early diagnosis of leprosy in primary care: a case report

Negligência no diagnóstico precoce de hanseníase na atenção primária: um relato de caso

La negliencia en el diagnóstico precoz de la lepra en atención primaria: reporte de un caso

Matheus Castro Conrado<sup>1</sup>, Rayssa Dantas Nogueira Benvindo<sup>1</sup>, Fábio Freitas de Sousa Passos Galvão 101, Marília Francisca da Silva Pereira 102, Quézia Vieira da Silva 102, Evandra Marielly Leite Nogueira Pinheiro 103

#### HOW TO CITE THIS ARTICLE:

Conrado MC, Benvindo RDN, Galvão FFSP, Pereira MFS, Silva QV, Pinheiro EMLN. Negligência no diagnóstico precoce de hanseníase na atenção primária: um relato de caso. Hansen. Int. 2023;48:1-6.

doi: https://doi.org/10.47878/hi.2023. v48.39030

#### CONTACT INFORMATION:

Matheus Castro Conrado

University Center of the Faculty of Health, Human and Technological Sciences of Piauí

E-mail: conrado.matheus@hotmail.com.

RECEIVED ON: 12/07/2022

ACCEPTED ON: 03/16/2023

PUBLISHED ON: 06/07/2023

- <sup>1</sup> Medical student at the University Center of the Faculty of Health, Human and Technological Sciences of Piauí - UNINOVAFAPI, Teresina, Piauí, Brazil.
- <sup>2</sup> Medical student at the Federal University of Piauí, Teresina, Piauí, Brazil.
- <sup>3</sup> Professor of the Dermatology Department of the Medicine course at the University Center of the Faculty of Health, Human and Technological Sciences of Piauí - UNINOVAFAPI, Teresina, Piauí, Brazil.

#### **ABSTRACT**

Leprosy is an infectious disease, transmissible, of a chronic nature, with serious potential for disability, which persists as a public health problem in Brazil. The delay and the lack of technical knowledge to carry out the diagnosis with numerous prejudices to the patients affected by the disease, since the prevention of disabilities is directly related to the early diagnosis of the disease. To avoid diagnostic negligence and the development of physical disabilities, we highlight the importance of technical knowledge about the diagnosis and management of training by health professionals at any level of health care or special care.

**Keywords:** Multibacillary Leprosy. Clinical Diagnosis. Early Diagnosis.



### **RESUMO**

A hanseníase é uma doença infecciosa, transmissível, de caráter crônico, com potencial grau de incapacidade, que ainda persiste como problema de saúde pública no Brasil. A demora e a falta de conhecimento técnico para realizar o diagnóstico resulta em inúmeros prejuízos aos pacientes acometidos pela doença, sendo que, a prevenção das incapacidades está relacionada diretamente com o diagnóstico precoce da doença. Com a finalidade de evitar a negligência diagnóstica e o desenvolvimento de incapacidades físicas, ressaltamos a importância do conhecimento técnico sobre o diagnóstico e o manejo da hanseníase por profissionais da saúde em qualquer nível de atenção à saúde ou especialidade.

**Palavras-chave:** Hanseníase Multibacilar. Diagnóstico Clínico. Diagnóstico Precoce.

#### **RESUMEN**

La lepra es una enfermedad infecciosa, transmisible, crónica y con potencial grado de discapacidad, que aún persiste como un problema de salud pública en Brasil. La demora y la falta de conocimiento técnico para hacer el diagnóstico, resultan en innumerables pérdidas para los pacientes afectados por la enfermedad, y la prevención de las discapacidades está directamente relacionada con el diagnóstico precoz de la enfermedad. Para evitar la negligencia en el diagnóstico y el desarrollo de discapacidades físicas, destacamos la importancia del conocimiento técnico sobre el diagnóstico y el manejo de la lepra por parte de los profesionales de la salud en cualquier nivel de atención o especialidad.

Palabras clave: Lepra Multibacilar. Diagnóstico Clínico. Diagnóstico Precoz.

#### **MEDICAL HISTORY**

Male, 31 years, single, unemployed, born and raised in the rural area of Timon, Maranhão, Brazil, with a history of nasal secretion and congestion for 6 months, reports having been followed up through scheduled appointments at the Primary Health Care (PHC), main complaint being defined and treated as a condition of allergic rhinitis, recommending the use of antihistamines and environmental control measures. He mentions that even after the therapeutic management instituted in primary care, there was a perpetuation of the symptoms and evolution of the clinical picture, a reason that led to the referral

of the patient to the otorhinolaryngologist. It was suggested at the time that rhinitis was the main diagnostic hypothesis.

In the specialized consultation with an otorhinolaryngologist, after performing a nasofibroscopy, the conclusive report was a centered septum with inferior perforation, granulomatous and bloody infiltration in the anterior region of the septum and nasal floor. Given this, the otorhinolaryngologist referred the patient to the Dermatology service in the municipality of Timon, considering that he had leprosy and that the nasal symptoms were leprosy rhinitis.

Dermatological examination revealed infiltration and thickening of the pinna, with rosary-shaped nodules (Figure 1), and mild superciliary madarosis (Figure 2). The neurological examination showed thickening of the right ulnar nerve and bilateral posterior tibial nerve, in addition to edema and paresthesia in feet with grade 1 disability. The diagnosis of Lepromatous leprosy was suggested, since clinical presentation of the disease is typical, with no need for complementary exams for diagnosis. Therefore, multidrug therapy in the multibacillary scheme (MDT-MB) was started, as well as follow-up and notification of the case. Bacilloscopy was requested with a positive subsequent result.

**Figure 1 –** Thickening of pinna, with rosary nodules

Source: Elaborated by the authors

Figure 2 - Discrete superciliary madarosis



Source: Elaborated by the authors



## **DISCUSSION**

According to the 2021-2030 Global Leprosy Strategy guide "Towards zero leprosy" by the World Health Organization (WHO), one of the main challenges for eliminating the disease is the delay in early detection of cases, which is strongly related to the lack of technical knowledge of health professionals, as well as a wide range of differential diagnoses for this pathology<sup>1</sup>. Furthermore, the unrestrained referral of patients to specialized care without genuine need also represents a challenge.

The clinical manifestation of leprosy is variable and may be single or multiple, depending on the pole in which the disease is found. The typical dermatological presentation is the occurrence of a skin lesion that presents itself with a decrease in thermal, painful, and tactile sensitivity, in that same order. The lesions can be pigmented or dyschromic, in plaques, with or without infiltration, nodular, or with the visible presence of tubercles. Neural involvement may also occur, with pain and thickening of the peripheral nerves<sup>2</sup>.

The diagnosis is essentially clinical, and the doctor must know the pathology, making the early detection, prevention, and measurement of disabilities, in addition to the contact evaluation in positive cases. Complementary exams such as bacilloscopy can help in some cases, however, it is important to emphasize that it is not necessary for the diagnosis, nor the institution of multidrug therapy (MDT)<sup>3</sup>.

According to Moreira, there are topics that every general practitioner should master, among these: leprosy, tuberculosis, acquired immunodeficiency syndrome (AIDS), dengue, and meningitis, subsidizing the diagnosis with laboratory tests whenever necessary<sup>4</sup>. Because of this statement, it is assumed that every specialist physician is also a generalist physician, who should, as a matter of principle, know and diagnose the most important diseases that represent a public health problem at an early stage. However, in the current health context, this is not what happens, with negligence in the management of these pathologies, both in primary care and in specialized care, by professionals who do not believe they are qualified to solve certain demands.

As a result, there is an increase in the unnecessary referral of patients to dermatological care, overloading the public health system<sup>5</sup>. Given this context, early detection by physicians, whether generalists or specialists, is directly related to minimizing the development of a patient's disabilities, as well as being related to the disease's transmissibility, which, as a rule, is only interrupted by the onset of MDT<sup>2,6</sup>.

Complications may arise before, during, or after treatment, not necessarily meaning a failure of the instituted MDT. The most common complications are related to leprosy reactions (Type I and Type II) and neural disabilities produced by the disease itself<sup>7</sup>.

This case is about a patient coming from PHC with typical presentations and outbreaks of Lepromatous leprosy, diagnosed through consultation with an otorhinolaryngologist, with the main complaint of chronic rhinitis. During the consultation, a nasofibroscopy was performed, conclusive for leprosy rhinitis. It is believed that 95% of Lepromatous leprosy cases will present an early nasal involvement, with increased proliferation of mucus-producing cells, which explains nasal congestion<sup>8</sup>.

Leprosy rhinitis has well-defined stages of presentation, with hyperproduction of mucus, edema, and increased nasal vascularization being an early finding, followed by destruction and ulceration of the mucosa, with granulomatous inflammatory infiltrate and, in the last stage, tissue fibrosis<sup>8</sup>. Consequently, with the nasal septum destruction, the nose can become a saddle, a typical sign of Lepromatous leprosy and its characteristic leonine face<sup>2,8</sup>.

Given the above, it is concluded that there are still difficulties in diagnosing leprosy, both by PHC professionals and by non-dermatologist specialists. Therefore, it is necessary to reinforce continuing education strategies, as well as to encourage early detection and leprosy treatment, which is important for preventing the installation of deficiencies and disabilities and avoiding unnecessary referral of patients.

**ETHICAL APPROVAL AND INFORMED CONSENT:** the study was approved by the Research Ethics Committee (RECs) of the University Center of the Faculty of Health, Humanities and Technological Sciences of Piauí – UNINOVAFAPI, Teresina, Piauí (Legal Opinion  $n^{\circ}$  5.778.354).

**CONFLICTS OF INTEREST:** The authors state that there are no conflicts of interest in this article.

AUTHORS' CONTRIBUTION: Conrado MC and Pinheiro EM contributed to the conception and design of the study, analysis, and interpretation of results, and writing and critical review of the manuscript's content. Benvindo RD and Galvão FF contributed to the analysis and interpretation of data, writing, and critical review of the manuscript's content. Silva QV and Pereira MF contributed to the conception and design of the study, writing, and critical review of the manuscript's content. All authors performed a critical review of the manuscript.

## **REFERENCES**

1. Organização Mundial da Saúde. Estratégia global de hanseníase 2021-2030: "Rumo à zero hanseníase"[Internet]. Nova Delhi: Organização Mundial da Saúde; 2021. [cited 2022 Mar. 28]. Available from: https://www.who.int/pt/publications/i/item/9789290228509.

- 2. Ministério da Saúde (BR). Guia prático sobre a hanseníase [Internet]. Brasília: Ministério da Saúde; 2017. [cited 2022 Mar. 28]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/guia\_pratico\_hanseniase.pdf.
- 3. Ministério da Saúde (BR). Secretaria de Vigilância em Saúde. Estratégia nacional para enfrentamento da hanseníase: 2019-2022. Brasília: Ministério da Saúde; 2021. [cited 2022 Mar. 28]. Available from: https://bvsms.saude.gov.br/bvs/publicacoes/estrategia\_nacional\_enfrentamento\_hanseniase\_2019.pdf.
- 4. Moreira TA. Panorama sobre a hanseníase: quadro atual e perspectivas. Hist. Cienc. Saúde Manguinhos, 2003 abr.;10(supl.1):291-307. doi: https://doi.org/10.1590/S0104-59702003000400014.
- 5. Jornal da USP [Internet]. Ribeirão Preto: USP; 2019. [updated 2019 Feb. 7; cited 2022 Mar. 28]. Falta de informação sobre a hanseníase dificulta diagnóstico; [about 1 screen]. Available from: https://jornal.usp.br/atualidades/falta-de-informacao-sobre-a-hanseniase-dificulta-diagnostico/.
- 6. Propércio A, Oliveira F, Vale T, Bandeira D, Marinho A. O tratamento da hanseníase a partir de uma revisão integrativa. Braz. J. Hea. Rev. 12 abr. 2021;4(2):8076-101. doi: https://doi.org/10.34119/bjhrv4n2-339.
- 7. Teixeira MAG, Silveira VM da, França ER de. Características epidemiológicas e clínicas das reações hansênicas em indivíduos paucibacilares e multibacilares, atendidos em dois centros de referência para hanseníase, na Cidade de Recife, Estado de Pernambuco. Rev Soc Bras Med Trop. 1 jun. 2010;43(3):287-92. doi: https://doi.org/10.1590/S0037-86822010000300015.
- 8. Silva GM da, Patrocinio LG, Patrocínio JA, Goulart IMB. Avaliação otorrinolaringológica na hanseníase protocolo de um centro de referência. Arq. Int. Otorrinolaringol [Internet]. 2008 [cited 2022 Mar. 28];12(1):77-81. Available from: https://www.arquivosdeorl.org.br/conteudo/pdfForl/485.pdf.