



IMAGES

Show me your skin and I will tell you who you are

Catarina Cascais-Costa^{a,*}, Catarina S. Carvalho^b, Carla Valente^a,
Gilberto Teixeira^a



^a Pulmonology Department, Centro Hospitalar Baixo Vouga – Hospital Infante D. Pedro, Aveiro, Portugal

^b Intensive Medicine Department, Centro Hospitalar De Trás-Os-Montes E Alto Douro, Vila Real, Portugal

M. tuberculosis infection remains a highly relevant topic worldwide and it is estimated that approximately 25% of the population is infected, with 95% of cases occurring in developing countries¹.

The manifestations of tuberculosis can be divided into pulmonary and extrapulmonary, the latter occurring in approximately 15% of cases². Skin involvement in tuberculosis is rare, and represents less than 2% of extrapulmonary manifestations³.

The main agent responsible for the skin lesions is *Mycobacterium tuberculosis*, but they can also be caused by *M. bovis* or the BCG vaccine⁴. They can manifest as inflammatory papules, verrucous plaques, chronic ulcers or suppurative nodes, as in the case presented³. This variety results from the mechanism of entry of *M. tuberculosis* into the skin (autoinoculation, exogenous inoculation or hematogenous route)⁵, the patient's immune status, sensitization of the host to the agent³, factors inherent to the host such as age, sex and race, and environmental factors such as climate and geographic location⁴.

Skin lesions are essentially divided into *true cutaneous TB*, a direct result of infection, and *tuberculids*, indicating hypersensitivity to *M. tuberculosis* antigens³. Sarcoidosis, abscesses, and nontuberculous infections are common differential diagnoses³. The diagnosis can be challenging, culture and histological study must be performed, histopathology can show nonspecific inflammation, without the formation of granulomas⁵. The definitive diagnosis is confirmed by a positive culture for *M. tuberculosis*³.

The authors present the case report of a 75-year-old independent man who visited his Assistant Physician due to a 6-month history, approximately, of multiple, recurrent, suppurating skin lesions in the right and left supraclavicular regions and upper thoracic regions.

On physical examination, the lesions had painless, granulomatous ulcer with a fibrinous base and the patient had another abscess next to the sternocleidomastoid muscle. He also showed signs of collateral circulation (Fig. 1).

This was immunocompetent patient with no relevant medical history and no usual chronic medication. Laboratory results showed a slight increase in inflammatory markers (PCR 5.81 mg/dl) with negative procalcitonin and serum tumor markers. Computed tomography of the neck and chest showed several abscesses, namely in the right and posterior lateral cervical region and in the right supraclavicular cavity (Fig. 2), there was no pulmonary involvement. The patient underwent a video bronchial fibroscopy that showed no endobronchial lesions; the microbiology and cytology of the aspirate and bronchoalveolar lavage were negative.

The abscess in the right supraclavicular cavity was aspirated. The cytology revealed a necrotic area with an associated inflammatory process and the culture in Loewenstein-Jensen medium was positive for *Mycobacterium tuberculosis*. The patient was sent to the Pneumology Diagnosis Center (CDP) and began treatment with the four initial antitubercular drugs (isoniazid 300 mg/day, rifampin 600 mg/day, pyrazinamide 1500 mg/day and ethambutol 1200 mg/day).

The treatment is similar to that of systemic tuberculosis, with tuberculostatic drugs³, and biopsies or surgical debridement may sometimes be necessary⁵. With the exception of disseminated miliary cutaneous forms, skin lesions respond well to treatment and have a good prognosis⁵.

IMAGES: Show me your skin and I will tell you who you are

* Corresponding author.

E-mail address: catarinacascaisc@gmail.com (C. Cascais-Costa).

<https://doi.org/10.1016/j.pulmoe.2021.03.010>

2531-0437/© 2021 Sociedade Portuguesa de Pneumologia. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).



Fig. 1 Patient's skin lesions.

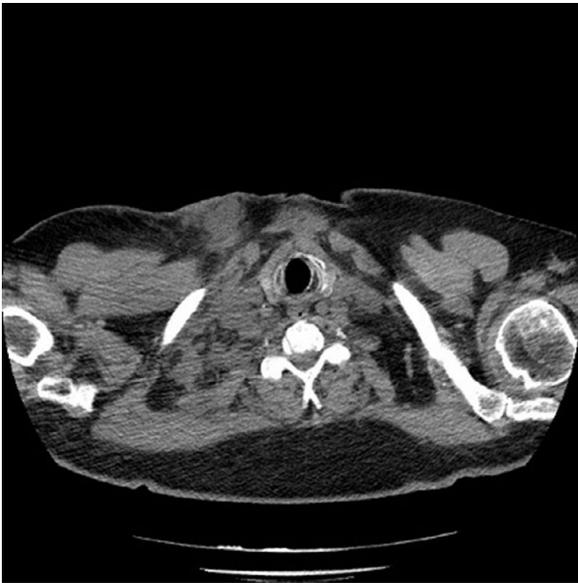


Fig. 2 Patient's CT scan.

With this case, the authors intend to show a rare form of a condition that still has a very negative impact on World Public Health, reinforcing the need to maintain strong clinical suspicion^{3,5} so as not to delay the start of effective therapy.

Funding

The authors declare that no funding was received for this paper.

Declaration of Competing Interest

The authors have no conflicts of interest to declare.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.pulmoe.2021.03.010](https://doi.org/10.1016/j.pulmoe.2021.03.010).

References

1. Horsburgh R, Fordham von Reyn C, Baron E. Epidemiology of tuberculosis. UpToDate. 2021. Available at: <https://www.uptodate.com/contents/epidemiology-of-tuberculosis>. Accessed on: 06/02/2021.
2. Bernardo J, Fordham von Reyn C, Baron E. Epidemiology and pathology of miliary and extrapulmonary tuberculosis. UpToDate. 2020. Available at: <https://www.uptodate.com/contents/epidemiology-and-pathology-of-miliary-and-extrapulmonary-tuberculosis>. Accessed on: 06/02/2021.
3. Handog E, Macarayo MJ, Rosen T, Ofori A. Cutaneous manifestations of tuberculosis. UpToDate 2020. Available at: <https://www.uptodate.com/contents/cutaneous-manifestations-of-tuberculosis>. Accessed on 06/02/2021.
4. Santos JB, Figueiredo AR, Ferraz CE, Oliveira MH, Silva PG, Medeiros VL. Cutaneous tuberculosis: epidemiologic, etiopathogenic and clinical aspects - part I. *Ann Bras Dermatol*. 2014;89(2):219–28. <https://doi.org/10.1590/abd1806-4841.20142334>.
5. Hill MK, Sanders CV. Cutaneous Tuberculosis. *Microbiol Spectr*, 5; 2017 Jan. PMID:28233513. <https://doi.org/10.1128/microbiol-spec.TNMI7-0010-2016>.