



Case study

Multifocal ulceronecrotic skin lesions—A stigmatizing case



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ABSTRACT

Mycobacterium chelonae is a rapidly growing nontuberculous mycobacteria, ubiquitous in the environment and mostly involved in skin, soft tissue and bone infections. An atypical, severe and multifocal dermatological manifestation of *Mycobacterium chelonae* infection in an immunocompetent patient is described here. The lesions completely resolved using a multidisciplinary approach. This case emphasizes the important aspects of diagnosis, antimicrobial and surgical management.

A previously healthy 81-year-old Canadian-born Caucasian male presented with a six-week history of progressive painful ulcerated skin lesions on both hands. He is a priest living in a religious community in rural Haiti where he spends his days gardening.

On examination, ulcerated and necrotic skin lesions were noted on both hands, wrist and palm junctions (Fig. 1), and on his left groin. He had no mucosal involvement, no fever, and the review of systems was negative. He denied any history of trauma. In such absence of clear predisposing or epidemiological risk factors, he wondered “could it be stigmata of the Christ?”.

Routine laboratory tests were within normal range, HIV and syphilis serologies were non-reactive and chest X-ray was normal. Magnetic resonance imaging confirmed that the lesions were restricted to skin and subcutaneous tissue. On skin biopsies, extensive epidermal and dermal necrosis with suppuration as well as ulcer associated with a polymorphous eosinophilic inflammatory infiltrate were demonstrated. There was no granulomatous infiltrate, no viral inclusions, and all stains performed were negative for microorganisms. Surgical debridement was performed. *Mycobacterium chelonae* grew from skin biopsies cultures after incubation for three weeks. Clarithromycin 500 mg twice daily was initiated followed by linezolid 600 mg daily based on antimicrobial susceptibility testing. Combination therapy was maintained for six months and was well tolerated. Complete healing was achieved (Fig. 2).

Mycobacterium chelonae is a rapidly growing nontuberculous mycobacterium. It is ubiquitous in the environment and mostly involved in skin, soft tissue and bone infections. Tissue biopsy and culture are the most sensitive diagnostic test [1]. For serious skin and soft tissue

infections, 6-month combination therapy including a macrolide and a second agent based on antimicrobial susceptibility testing is recommended [2]. Surgical debridement is another important element of successful therapy.

Authors contribution

All cited authors qualify for authorship according to the ICMJE recommendations. All the authors were implicated in clinical care of the patient. FEB reviewed medical chart and was a major contribution in writing the manuscript. SGL was a minor contribution in writing the manuscript. MNB performed skin biopsies and was a minor contribution in writing the manuscript, SB supervised clinical management and was a major contribution in writing the manuscript. All authors have read and approved the final manuscript.

The corresponding author declares she had full access to all the data in the study and had final responsibility for the decision to submit for publication. Data supporting this manuscript are protected in the patient medical chart and laboratory information systems at Centre Hospitalier de l'Université de Montréal.

Declaration of interests

The authors declare no financial or non-financial competing interests in relation with this work.

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Fig. 1. Ulceronecrotic skin lesions at the junction of the wrist and the palm of both hands in a 81 year-old male.



Fig. 2. Complete healing after 6 months of a macrolide-based combination therapy.

Consent for publication

Written and signed consent to publish the information presented in this manuscript was obtained from the patient.

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References

- [1] Griffith DE, Aksamit T, Brown-Elliott BA, Catanzaro A, Daley C, Gordin F, et al. An official ATS/IDSA statement: diagnosis, treatment, and prevention of nontuberculous mycobacterial diseases. *Am J Respir Crit Care Med* 2007;175(4):367–416.
- [2] Parize P, Hamelin A, Veziris N, Moran PC, Guillermain R, Lortholary O, et al. Induction therapy with linezolid/clarithromycin combination for *Mycobacterium chelonae* skin infections in immunocompromised hosts. *J Eur Acad Dermatol Venereol* 2016;30:101–5.