

Cervical Lymphadenitis Due to *Mycobacterium bohemicum*

Nontuberculous mycobacterial lymphadenitis, traditionally imputed to *Mycobacterium scrofulaceum*, has been shown in recent years to be often due to members of the *Mycobacterium avium* complex [1]. Very recently, however, a number of previously unrecognized mycobacteria have been found to be involved in such pediatric disease. We report here a case of laterocervical lymphadenitis due to the most recently recognized mycobacterial species, *Mycobacterium bohemicum* [2].

An 11-year-old boy was hospitalized because of a 3-week history of nonaching swelling in the left submandibular gland, with no associated erythema. Hematologic findings were normal, and serology was negative for cytomegalovirus, toxoplasmosis, and HIV.

An echographic scan showed 2 lymph nodes of ~2 cm in diameter. Histologic examination of a needle aspirate revealed granulomatous inflammation and acid-fast bacilli. A mycobacterium grew in cultures of a subsequent needle aspirate, in both radiometric and solid media, and treatment with amikacin, clarithromycin, and ethambutol was initiated.

Two weeks later, however, the whole lymphonodal pack was removed, and a mycobacterium from the excised material was again isolated in culture. The isolate, which was scotochromogenic, had biochemical and cultural features grossly compatible with *M. scrofulaceum* (semiquantitative catalase findings were the only ones noncompatible).

High-performance liquid chromatography of cell-wall mycolic acids revealed a pattern that, although similar, did not overlap that of the representative profile of this species. Finally, the genetic sequencing of hypervariable regions of 16S rRNA revealed identity with the newly described *M. bohemicum*. This finding was confirmed by the compatibility of almost all standard features (our isolate differed from the type strain only in that it failed to grow at 25°C) and by a mycolic acid profile in high-performance liquid chromatography that overlapped that of the reference strain for this novel species.

Antimicrobial susceptibility testing in liquid radiometric medium showed the following MICs (µg/mL): amikacin, 2; ciprofloxacin, 1; clarithromycin, 2; rifabutin, 0.12; rifampin, 2; streptomycin, 2; and ethambutol, 8. These MICs revealed full susceptibility to all antimicrobials tested, with the exception of ethambutol.

A previously reported case of mycobacterial lymphadenitis, attributed at that time to an unknown mycobacterium [31], can now be ascribed to *M. bohemicum* on the basis of agreement of phenotypic characteristics (biochemical and lipidic patterns) and genotypic features. The MICs against that isolate were very close to those presented in this case report.

The pathogenic role of *M. bohemicum*, questionable in the case of pulmonary isolation that gave rise to the new-species description [2], therefore seems plausible in both reported cases of pediatric infection.

This new agent adds to the list of mycobacteria responsible for cervical lymphadenitis in childhood. The similarity of its phenotypic traits to those of *M. scrofulaceum* suggests the possibility that at least some cases traditionally attributed to that species could instead be due to *M. bohemicum* and once more emphasizes the role of genetic sequencing in the recognition of microorganisms.

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References

1. Wolinsky E. Mycobacterial lymphadenitis in children: a prospective study of 105 nontuberculous cases with long-term follow-up. *Clin Infect Dis* **1995**;20: 954-63.
2. Reischl U, Emler S, Horak Z, et al. *Mycobacterium bohemicum* sp. nov., a new slow-growing scotochromogenic mycobacterium. *Int J Syst Bacteriol* **1998**;48:1349-55.
3. Tortoli E, Kirschner P, Springer B, et al. Cervical lymphadenitis due to an unusual mycobacterium. *Eur J Clin Microbiol Infect Dis* **1997**; 16: 308-11.

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