

Extrapulmonary nontuberculous mycobacteria infections: a ten-year review in a tertiary care hospital in Belgium

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Background

Nontuberculous mycobacteria (NTM) are prevalent ubiquitous organisms, experiencing a global rise in infection rates. These infections present various clinical manifestations based on the NTM species, environmental exposure, and host immune status. While epidemiological data often rely on positive culture results, NTM isolation does not necessarily indicate disease. Our study aims to analyze and describe the current epidemiological situation of extrapulmonary NTM infections, focusing on risk factors, management, and outcomes.

Methods

This retrospective study was conducted at the Cliniques Universitaires Saint-Luc, Brussels, Belgium, from 2010 to 2019. Epidemiological and clinical data were retrospectively collected from patients whose extrapulmonary samples tested positive for NTM species.

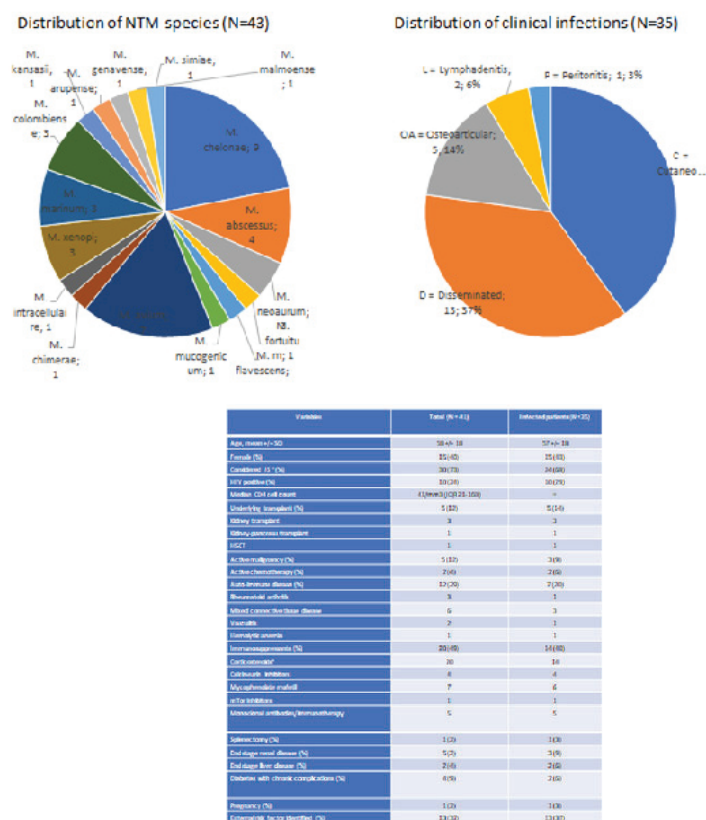
Results

We recorded 43 cases of extrapulmonary NTM positive samples in 41 patients, leading to 35 confirmed infections over the 10-year period. The infections involved 18 different NTM species, resulting in 14 skin and soft tissue infections, 13 disseminated infections, 5 osteoarthritis, 2 lymphadenitis, and 1 peritonitis. The most prevalent species were *M. chelonae*, followed by *M. avium*, *M. abscessus*, *M. marinum* and *M. xenopi*. The average age of the 35 infected patients was 57 ± 18 years, with a majority being male (57%). Of these, 69% (24 patients) were immunosuppressed: 29% (10 patients) were HIV-positive with a median CD4 cell count of 41/mm³ (IQR 21-160), 7 had autoimmune diseases, 5 had undergone transplantation, and 3 had active malignancy. All disseminated infections occurred in immunosuppressed patients. Over a third of the patients had identified exposure risk factors. Two patients died from NTM infection.

Conclusions

Our findings align with recent reports indicating a growing trend in NTM infections over the past decade. These results underscore the need for systematic surveillance and comprehensive global studies on extrapulmonary NTM infections.

Figure 1.



Categorical variables are summarized as number (%) of patients.

SD: standard deviation.

HIV positive (CD4 <200/mm³, VL detectable or AIDS), solid transplantation, hematopoietic transplantation, active malignancy, radio-chemotherapy, autoimmune disease, immunosuppressive treatment, corticosteroids (>20mg prednisone or equivalent for more than 14 days), pregnancy, complicated diabetes, terminal renal failure, end-stage liver disease, splenectomy.

More than 20mg prednisone or equivalent for more than 14 days.

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