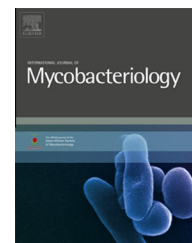


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Chronic infection with non-tuberculous mycobacteria in patients with non-CF bronchiectasis: Comparison with other pathogens



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ABSTRACT

Introduction: The aim of this study is to compare characteristics of non-cystic fibrosis bronchiectasis (NCFBE) patients with chronic infections with non-tuberculous mycobacteria (NTM) versus those with *Pseudomonas aeruginosa* or other colonizations.

Methods: This was an observational, perspective study of consecutive NCFBE adult patients attending the outpatient bronchiectasis clinic at the San Gerardo Hospital in Monza, Italy, during 2012 and 2013. Patients with a chronic infection were included in the study and divided into three groups: those with NTM (Group A); those with *P. aeruginosa* (Group B); and those with other pathogens (Group C). Patients with both NTM and another pathogen were included in Group A. Comparison among the three study groups was performed using X^2 or Fisher exact test for categorical variables or Kruskal–Wallis or Mann–Whitney test for continuous variables.

Results: A total of 146 patients (median age 67 years, 40% males) were enrolled: 19 belonged to Group A, 34 to Group B and 93 to Group C. Within group A, 6 patients had only NTM isolation, 7 patients had NTM and *P. aeruginosa* co-infection and 6 patients had NTM plus another pathogen. The most common isolated pathogens among NTM was *Mycobacterium avium complex* (15 patients, 79%). A total of 4 patients (21%) with NTM were on active treatment. Patients affected by NTM pulmonary infection had a significantly less severe clinical, functional and radiological involvement compared with patients colonized by *P. aeruginosa*, see Table.

Conclusions: Colonization with *P. aeruginosa* seems to have the highest impact on the clinical, functional and radiological status of patients with NCFBE. No specific characteristics

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	Group A (NTM) n = 19	Group B (<i>P. aeruginosa</i>) n = 34	Group C (Others) n = 93	p Value*	p Value [#]	p Value ⁺
Age (years), median (IQR)	70 (64–75)	74 (67–79)	66 (53–72)	0.001	0.172	0.050
Male, n (%)	8 (42)	15 (44)	36 (33)	0.660	–	–
BMI, median (IQR)	22 (19–26)	24 (21–25)	24 (21–27)	0.352	–	–
BSI, median (IQR)	5 (4–9)	12 (8.5–16)	5 (3–7)	0.001	0.001	0.090
Bhalla score, median (IQR)	21 (15–34)	36 (30.5–40.5)	16 (10.5–21.5)	0.001	0.016	0.076
Idiopathic etiology, n (%)	8 (42)	11 (32)	37 (40)	0.721	–	–
Post-infective etiology, n (%)	8 (42)	16 (47)	29 (31)	0.244	–	–
Exacerbations/y, median (IQR)	1 (0–2)	2 (1.5–3.5)	2 (1–2)	0.040	0.024	0.132
FEV1%, median (IQR)	85 (59.75–109.5)	58.5 (48.25–74)	84 (62–102)	0.002	0.010	0.857
FVC%, median (IQR)	94.5 (70–109.75)	65 (56–81.5)	88 (69.5–101.5)	0.003	0.003	0.270

*Among the three groups: [#]Group A vs. Group B; ⁺Group A vs. Group C; BMI: Body mass index; BSI: bronchiectasis severity index; y: year.

may help to identify NTM versus other pathogen colonizations. Thus, diagnostics for atypical mycobacteria should be performed on all patients with NCFBE, as suggested by recent international guidelines.

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