



FREQUENCY AND RELEVANCE OF NONTUBERCULOUS MYCOBACTERIAL ISOLATES IN PATIENTS WITH COPD EXACERBATIONS

TOLIĆ E.¹, Darapi Marušić D.¹, Škoro M.¹, Čorak L.¹, Smiljanić S.², Glodić G.¹, Lovrić Dotlić T.¹, Moćan A.¹, Badovinac S.^{1,2}, Mareković I.^{2,3}, Janković Makek M.^{1,2}

¹ University Hospital Centre Zagreb, Zagreb, Croatia
Clinic for Respiratory diseases Jordanovac

² University of Zagreb, Zagreb, Croatia
School of Medicine

³ University Hospital Centre Zagreb, Zagreb, Croatia
Department of Clinical and Molecular Microbiology

Objective:

Chronic obstructive pulmonary disease (COPD) is a known risk factor for nontuberculous mycobacterial pulmonary disease (NTM-PD), and inhaled corticosteroid (ICS) therapy has also been associated with an increased incidence of NTM-PD. However, there is limited information on the yield of NTM screening in COPD patients.



The aim of our study was to determine the frequency and relevance of NTM isolates in patients with COPD exacerbations at the University Hospital Centre Zagreb.

Methods:

We conducted a retrospective analysis of mycobacterial cultures obtained from COPD patients during exacerbations between January 1st, 2021 and December 31st, 2022. Both sputum and bronchoscopy obtained samples were included in the analysis.

Result:

Our cohort encompassed 175 COPD patients (GOLD I 3.4%, GOLD II 19.4%, GOLD III 32.1%, GOLD IV 29.7%, unknown 15.4%; frequent exacerbators 50.28%, unknown 1.7%; ICS therapy in 63.4%). NTM were isolated from 5/175 (2.86%) of patients: 4 *M. avium* and 1 *M. xenopi*. The NTM group didn't differ from the non-NTM group in average age (66.3 vs. 69.85), average smoking pack-years (57 vs. 53), or mean BMI (25.14 vs. 25.32 kg/m²). However, all patients with NTM isolate were frequent exacerbators and used ICS but, interestingly, had only moderate severity of obstruction in spirometry. Only two out of five patients had NTM-PD, both caused by *M. avium*.

Conclusion:

In our setting, the yield of NTM screening in COPD exacerbations is low and might be recommended only in COPD patients with a phenotype of frequent exacerbator and ICS therapy, regardless of the obstruction severity.

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