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Poster Session III

Epidemiological and clinical studies on non-tuberculous mycobacteria

DESCRIPTIVE ANALYSIS OF NONTUBERCULOSIS MYCOBACTERIA ISOLATED OVER A 5-YEAR PERIOD AT A GENERAL UNIVERSITY HOSPITAL.

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Objectives. The frequency of the isolation of Nontuberculous Mycobacteria (NTM) is increasing in recent years in southern Europe, especially in patients with chronic lung disease, coinciding with a decrease in the cadence of tuberculosis (TB). The aim of this study was to describe the NTM isolated in a general university hospital serving an area of 400,000 inhabitants and analyze the associated epidemiological, clinical and microbiological factors.

Methods. In this retrospective study, MNT isolates were obtained over a 5-year period (January 2008 to December 2012) from our Microbiology database. Medical charts were reviewed for the following data: demographic, pulmonary and non-pulmonary diseases, presence of immunosuppression (HIV and non-HIV-related), site of disease, major symptoms at the time of sample collection, toxic habits, mycobacteriosis background and direct staining results. Case analysis definition: patients with more than one isolate of the same species were considered once, whereas those with isolates separated over time with more than one species were considered as different cases.

Results. 211 cases of MNT corresponding to 195 patients were analyzed. 183 (93.85%) had a single species and 12 (6.15%) had two or more (8 with 2 and 4 with 3). 121 (62.05%) patients were men. The mean age was 63 years (median 67, range 21-103). 92.89% of patients were Spaniards. Regarding toxic habits, smoking was reported in 47.87%; alcohol in 10.43%; other drugs in 7.11%; and unknown in 9%. Immune Status: 14.69% were HIV+, 30.33% had non-HIV-related immunosuppression (29.86% neoplasms, 4.27% post-transplant, 9.95% unknown). Pulmonary disease: 23.22% chronic obstructive pulmonary disease (COPD), 6.16% asthma, 28.44% bronchiectasis, 1.42% other pulmonary disease and 8.53% unknown. Diabetes was positive in 14.22% of cases. Previous mycobacteriosis was present in 17.53% of cases, 14.69% being TB and 2.84% NTM. Direct staining was positive in 5.21% of cases. The species distribution was as follows: 40.28% *Mycobacterium avium* complex (MAC), 13.27% *Mycobacterium gordonae* (MG), 4.74% *M. xenopi* (MX), 6.16% *M. kansasii* (MK), 1.42% *M. genavense* (MGe), 14.22% *M. chelonae-abscessus* complex (MCA), 10.90% *M. fortuitum* complex (MFC) and 9% other species. Localization was pulmonary in 88.15% of cases. Analysis by species showed: general symptoms, diabetes and asthma were more common in MK (46.15%, 23.08% and 92.31% vs. 29.3%, 13.64% and 6.57%); bronchiectasis, COPD and previous mycobacteriosis were more prevalent in MAC (25.88%, 31.76% and 25.88% vs. 11.11%, 19.19% and 8.59%). On dividing the analysis into two periods of 2.5 years more isolates of MAC and MFC were observed with a decrease in MCA and MG in the second period.

Conclusions. Most of the NTM isolates in our center were pulmonary and mainly observed in patients with pulmonary pathology, including a history of mycobacteriosis, and with some immunosuppression factors.