

Natural history of Mycobacterium avium complex lung disease in untreated patients with stable course

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ABSTRACT Little is known about the long-term natural history of Mycobacterium avium complex lung disease (MAC-LD) in untreated patients with stable course.

The aim of this study was to investigate the natural course of untreated stable MAC-LD, with a focus on factors associated with clinical deterioration, spontaneous sputum conversion and prognosis.

Of 488 patients diagnosed with MAC-LD between 1998 and 2011, 305 patients (62.5%) showed progressive MAC-LD resulting in treatment initiation within 3 years of diagnosis and 115 patients (23.6%) exhibited stable MAC-LD for at least 3 years with a median follow-up duration of 5.6 years. Patients with stable MAC-LD were more likely to have higher body mass index and less systemic symptoms at initial diagnosis compared with patients with progressive MAC-LD, while positive sputum acid-fast bacilli smear, fibrocavitary type and more extensive disease in radiological findings were more associated with progressive MAC-LD. Of the untreated patients with stable MAC-LD, 51.6% underwent spontaneous sputum conversion, with younger age, higher body mass index and negative sputum acid-fast bacilli smear at initial diagnosis found to be predictors of this occurrence. Advanced age, fibrocavitary type and abnormal pulmonary function were negative prognostic factors for survival in patients with stable MAC-LD.

Eur Respir J 2017; 49: 1600537 [<https://doi.org/10.1183/13993003.00537-2016>].