Title: Pulmonary tuberculosis relapse or atypical mycobacterium infection?

Body: In endemic countries, pulmonary tuberculosis (PTb) relapse is the first diagnosis evoked when patients with previous history of PTb develop respiratory symptoms. The diagnosis of atypical mycobacterial infection (AMI) complicating Tb sequelae is often accidentally discovered. In order to precise predictors features of AMI, we analyzed all cases of AMI complicating PTb sequelae in immunocompetent patients diagnosed 2006 through 2011. AMI diagnosis was based on American Thoracic Society criteria. Only 4 AMI cases were collected. All patients were male, smokers and aged 37, 40, 42 and 54 years respectively. Two patients were ethylic and 1 asthmatic. No patient had HIV infection. Clinical and radiological presentation simulates PTb in all cases. Chest radiography showed PTb sequelae, excavated opacities and apical nodules. All patients had positive smear bacilli and were then treated as a PTB relapse. But outcome was unfavorable in all cases. Sputum culture revealed in all cases AMI (1 M. avium, 1 M. Kansasii, 1 M. Abscessus, 1 M.). The average time to diagnosis was 3.3 months due to culture needs. Evolution under
treatment adapted to the antibiogram was favorable in two cases. Our results show, that diagnosis of AMI complicating PTb sequellae is difficult and diagnosis delay is relatively long due to culture necessity. Frequently positive Smear bacilli and no specific signs (clinical, biological, radiological) were associated to AMI leading to confusing diagnosis. Only sputum culture allows the distinction between typical and atypical mycobacterium infection. In PTb relapse, AMI should always be kept in mind.