

Non-tuberculous mycobacteria

Non-tuberculous mycobacteria isolated from 2004 to 2007 in Caracas, Venezuela

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Recent publications show that non-tuberculous mycobacteria (NTM) infections, especially lung infections, are on the increase probably due to improved clinical and laboratory diagnostic techniques. In the present investigation, the non tuberculous mycobacteria and their site of infection isolated in our laboratory in Caracas, Venezuela from 2004 to 2007 are described. In this period, NTM was isolated from 266 patients, 215 from soft tissue samples, 36 from sputum samples and 15 from normally sterile body liquids. Patient data showed that 163 (80 %) of the patients with a soft tissue infection underwent cosmetic procedures: Mesotherapy (51,5 %), Liposuction (6,1 %), or breast implants (13 %). The other patients underwent other chirurgic invasive procedures. The species most often isolated from these patients were: *M. abscessus* (42,6 %), *M. fortuitum* (28,7 %) and *M. chelonae* (22,8 %). From sputum samples the most common isolated species were: *M. intracellulare* (30,6 %), *M. fortuitum* (11,1 %) and *M. abscessus* (8,3 %). We conclude that most infections caused by NTM are soft tissue infections, related with invasive procedures linked to cosmetic procedures With 12.000 sputum samples processed during 4 years and only 36 NTM isolates, lung infection with non-tuberculous mycobacteria is apparently not a real problem in our setting.

Key Words: Non-tuberculous Mycobacteria, PCR-restriction analysis, invasive procedures.

A map-immunoassay reconfirms the association of *Mycobacterium avium* subsp. *paratuberculosis* with type-1 but not type-2 Diabetes Mellitus

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INTRODUCTION: *Mycobacterium avium* subspecies *paratuberculosis* (Map) is a zoonotic pathogen whose association with Crohn's disease in humans is under scrutiny. Diabetes Type 1 (T1DM) is an autoimmune disease where unknown environmental factors play a major role. **OBJECTIVE:** To investigate its association with other chronic diseases such as T1DM, where the involvement of a persistent pathogen as Map could be the trigger **Methods** Antibodies against two recombinant Map antigens (HbHA and GSD) and the whole cell lysate of the Map bacilli were searched among the sera of 59 Type 1 Diabetic patients (T1DM), 57 Type 2 Diabetic Patients (T2DM) and 59 controls. Map was searched in the PMBC by a

specific PCR targeting IS900. Sequence product confirmed identity by sequencing. RESULTS: Extremely significant humoral responses to recombinant HbHA and GSD proteins and the whole cell lysates of the Map bacilli were recorded in T1DM patients as compared to healthy controls whereas Type 2 diabetic patients were similar to controls. A total of 29 blood samples out of 46 were found to be positive for Map specific PCR (63 %) whereas only 8 out of the 50 healthy control samples (16 %) generated a positive signal. CONCLUSIONS: We report presence of Map DNA and Map specific antibodies in the blood of Type 1 Diabetes Mellitus patients in an endemic setting like Sardinia. Finding evidence of Map involvement in T1DM is perhaps a novel finding that might serve as a foundation stone in establishing an infectious etiology for T1DM.