

## **ISOLATION OF *MYCOBACTERIUM MALMOENSE* ON THE ISLAND OF CRETE, GREECE, EUROPE'S MOST SOUTHERN REGION**

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Purpose: To describe the first isolation of *Mycobacterium malmoense* from a clinical specimen in the island of Crete, Europe's most southern region

Case Presentation: A 73-year-old man with past medical history of smoking and diabetes mellitus, presented with abdominal pain, nausea, vomiting and weight loss. The physical examination revealed significant hepatomegaly. The chest radiography was consistent with an increase in size of the right hilum and computed tomography showed a mass of 10x8 cm. There were small satellite nodules and enlarged paratracheal and subcarinal lymph nodes. A bronchoscopy was performed and broncho-alveolar lavage was sent for mycobacterial culture. Bronchoscopy revealed infiltration of the right bronchus and biopsy was consistent with Small Cell Lung Cancer. The liquid culture turned positive after 35.6 days. GenoType Common Mycobacteria assay (Hain Lifescience, Germany) gave a hybridization pattern indicative of either *M. malmoense* or *M. haemophilum* but GenoType Additional Species assay ruled out the presence of *M. haemolyticum*. Susceptibilities were determined with the proportions method. The strain was resistant to isoniazid, ethambutol, para-4-aminosalicylic acid, but sensitive to rifampicin, pyrazinamide, streptomycin. It was considered a colonizer.

Conclusion/Discussion: This is the first report of *M. malmoense* isolation in Crete, which is Europe's most southern region. *M. malmoense* is a non-pigmented, slow growing mycobacterium that has rarely been isolated from the environment. It is considered of increased pathogenicity in patients with immunodeficiency, cancer or chronic lung disease. The clinical isolates are largely confined to Northern and Central Europe and Northern America and only a few cases from southern Europe. It has been thought to be restricted to cool climates. Its isolation in a region with warm to subtropical climate is suggestive of its ubiquity and should increase the awareness among microbiologists for the need of more appropriate cultural procedures such as lower incubation temperatures and use of acid media.