EPIDEMIOLOGICAL STUDY OF TUBERCULOSIS IN SOUTHWESTERN GREECE


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**Objectives:** To estimate the incidence of Tuberculosis (Tb) and the susceptibility of Mycobacterium Tuberculosis (M.Tb) in Southwestern Greece as was detected by the BACTEC MGIT 960.

**Methods:** A total of 6500 clinical specimens were cultured by the BACTEC MGIT 960 system in a three year period (2004 – 2006). All specimens except CSF had a procedure with N-acetyl-L-cysteine-2% NaOH (Mycoprep – Becton Dickinson) and the sediments were subjected to smear examination for acid – fast bacilli and cultured in BACTEC MGIT 960 media supplemented with the antibiotic mixture PANTA and growth supplement as well. The identification was carried out by the Accuprobe (Biomerieux). The susceptibility was performed for Streptomycin, Isoniazid, Rifampin and Ethambutol.

**Results:** 196 Mycobacterium tuberculosis (M.Tb) strains reflecting 196 new cases of Tb and 10 non–tuberculosis mycobacteria (MOTT) were isolated. 177 M.Tb strains were isolated from respiratory system (125 sputum, 40 bronchial secretions, and 12 pleural fluids), 8 from urine, 10 from gastric fluid, 3 from CSF and 1 from ascetic fluid. 3 patients had located the disease in respiratory and uriniparus system simultaneously. 20 (10%) patients were foreign. MOTT strains were isolated from respiratory system and identified as: M. avium complex 7, M. gordonae 2 and 1 M. kansasii. 143 (73%) specimens were found positive by acid – fast stain method. Average time needed for detection of mycobacterium was 11,5 days. The resistance to antituberculosis drugs was: streptomycin 44,6%, isoniazid 44,1%, rifampin 10% and ethambutol 48%. 7% of M.Tb strains were resistant to all antituberculosis drugs tested.

**Conclusion:** The incidence of Tb in Southwestern Greece is extremely high but the most important is the high resistance of M.Tb strains to the antituberculosis drugs of first line. The use of Bactec MGIT 960 gave us the ability of quick detection and the susceptibility test gave us the opportunity for a more effective therapy in order to limitate Tb.