MOLECULAR IDENTIFICATION OF NON-TB (NTB) MYCOBACTERIA IN ROUTINE LABORATORY INVESTIGATION

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Aim: To study the NTB mycobacteria isolations in various clinical sites (January 2005-October 2006).

Material: 31980 clinical specimens were tested, while 1011 (3,2%) acid-fast bacteria were isolated.

Methods: Microscopy by Ziehl Neelsen stain. Culture by the classical method on solid Löwenstein-Jensen (LJ) medium, as well as, by the automated system Bactec MGIT 960 (Becton Dickinson). Identification by molecular hybridization, using the commercial kits: InnoLipa V2 (Innogenetics), Accuprobe (Gen Probe, Biomerieux) and Genotype Mycobacterium CM and AS (Hain Life, Science).

Sensitivity testing by the classical method of proportion on LJ solid medium, as well as, by the automated system, Bactec MGIT 960 (Becton Dickinson) and the molecular hybridization technique, Geno Type MTBDR,(Hain Life Science).

Results:

159/1011 (15,7%) acid-fast isolates were NTB mycobacteria.

125/159 (78,6%) from NTB were successfully identified on species level.

34/159 (21,4%) of NTB isolates were unidentified.

From the 125 successfully identified NTB mycobacteria, 40 (32%) were *M. avium*, 24 (19,2%) *M. fortuitum*, 14 (19,2%) *M. gordonae*, 11 (8,8%) *M. peregrinum*, 6 (4,8%) *M. chelonae*, 6 (4,8%) *M. intracellulare*, 6 (4,8%) *M. abscessus*, 5 (4%) *M. xenopi*, 5 (4%) *M. kansasi*, 3 (2,4%) *M. scrofulaceum*, 2 (1,6%) *M. celatum*, 2 (1,6%) *M. marinum* and 1 (0,8%) *M. lentiflavum.*

Conclusions: Commercial kits provide an adequate support for the identification of NTB mycobacteria in routine laboratory work, adding good information for the involvement of theese unusual mycobacteria in clinical infections.