Rapid diagnosis of mycobacterial infections

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ABSTRACT

While pulmonary tuberculosis (PTB) remains an important public health issue worldwide, there is an emerging interest in non-tuberculous mycobacteria (NTM) which is responsible for opportunistic infections of the respiratory tract as well as other anatomical sites in both developed and developing countries. In this context the one goal of the clinical mycobacteriology laboratories is to provide physicians with an accurate identification of the mycobacterium as rapidly as possible. During the last ten years, several lines of laboratory tools have been developed in order to speed the isolation and identification of mycobacteria from clinical specimens. Chiefly, the composition of culture medium was renewed along with the protocol of incubation in order to recover Mycobacterium tuberculosis (MTB) micro-colonies as soon as 48 h after the inoculation of the specimen. MALDI-TOF rapid identification is clearly the tool to be implemented in the laboratory for the rapid identification of the micro-colonies. Also, molecular tools and genomics are necessary in order to depict new mycobacteria species, including those of the Mycobacterium abscessus complex and the Mycobacterium avium complex. All these tools and their connections will be presented during this conference.

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