P066

BATTERIOLOGIA

EVALUATION OF MYCO-TBTM KIT FOR DECONTAMINATION OF URINE AND STOOL SPECIMENS TO DETECT MYCOBACTERIUM TUBERCULOSIS

R. Grossi [1], A. Careddu [1], R. Nicotra [1], M. Sanguinetti [1], M. Sali [1]
[1]*Fondazione Policlinico Universitario Agostino Gemelli IRCCS*

INTRODUZIONE

Tuberculosis (TB) has been a major global public health problem from times immemorial. World Health Organization (WHO) estimates shows that globally there are 8.6 million incident cases of TB of which 80% are in 22 countries. Extra-pulmonary tuberculosis (EPTB) constitutes about 15 to 20 % of all cases of TB. The annual global incidence of EPTB has been increasing in the last decade due to the changing TB control practices, spread of HIV, the population growth and the cure of infectious cases of TB might have resulted in a relative rise of annual EPTB case detection. The diagnosis of EPTB poses a particular challenge for clinician because of the ways in which the disease presents. Accurate diagnosis of EPTB depends on the detection of Mycobacterium tuberculosis (Mtb) from biological specimens.
Most of the extra-pulmonary specimens (such as body fluids, aspirates, pus, urine and stool) need decontamination but certain decontaminating agents destroy a substantial number of mycobacteria along with the contaminants, while others are too weak to destroy them. The resulting consequence is a costly delay in detecting the tubercle bacilli thereby slowing down the process of initiation of therapy.
The aim of this study was to evaluate Myco-TBTM in sample pre-treatment, compared to the N-acetyl-L-cysteine–sodium hydroxide (NALC-NaOH) decontamination and fluidization method, for the detection of the Mycobacterium tuberculosis complex (MTBC) and Non Tuberculous Mycobacteria (NTM) in urine and stool specimens.

METODI

A total of 20 urine and 20 stool specimens were collected and decontaminated by using the ready-to-use kit Myco-TBTM kit (Copan Italia, Brescia) and then evaluated for the detection of mycobacteria by microscopy, bacterial culture and molecular techniques

RISULTATI

Our findings suggest that Myco-TB is an effective and faster decontamination tool for extrapulmonary clinical specimens as urine and stool.

CONCLUSIONI

This approach allows to reduce microbial contaminants and to efficiently remove inhibitors for molecular assays increasing the specificity and significantly reducing the invalid tests.