

Isolation and Identification of *Stenotrphomonas Maltophilia* from the Hospitals of Tehran City

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Abstract

Background and Objective: *Stenotrphomonas maltophilia* is an opportunistic nosocomial pathogen with high mortality in immunocompromised cases. The aim of this study was to isolate and identify *Stenotrphomonas maltophilia* in the hospitals' environment and wards.

Material and Methods: In this cross-sectional study, a total of 1108 samples were collected from environment of two hospitals during 12 months. Identification of isolates was performed using biochemical, phenotypic (intrinsic resistance to carbapenems) and molecular methods (amplification of 23S rRNA gene).

Results: Of the studied samples, 186 (16.78%) nonfermentative gram negative bacilli (NFGNB) were identified. Amongst NFGNB, 18 (1.62%) isolates were identified as *S. maltophiliaby* using biochemical tests. Of 18 biochemically identified isolates, 15 (83.3%) were confirmed via PCR. Sinks (40%) and men surgery ward (33.3%) were the most contaminated sites and wards of hospitals, respectively.

Conclusion: *S. maltophilia* is repeatedly isolated from sink which shows that the moist hospital environments need to be considered as a source for dissemination of bacteria.

Keywords: Nosocomial Infections, Nonfermentative Gram Negative, *Stenotrphomonas Maltophilia*, PCR