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Toronto, Canada**Isolation of nontuberculous mycobacteria in the waters of a hemodialysis center****Soheila Khaghani, Seyed Mohammad Alavi and Shokouh Ghafari**
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Introduction & Aim: Hemodialysis is a therapeutic manner for chronic renal incompetence patients. The use of poorly treated water during hemodialysis may lead to contamination with nontuberculous mycobacteria (NTM). The aim of this study was to investigate contamination in waters of a hemodialysis center with nontuberculous mycobacteria (NTM).

Methods: A total of 60 samples taken at different points in each hospital's hemodialysis distribution system were collected in Ahvaz, Iran. A volume of 500 mL of the samples were filtered through membrane filters with pores 0.45 µm in diameter. Sediment of each sample was inoculated into two Lowenstein-Jensen medium. Isolated mycobacteria colonies were studied with phenotypic tests, PCR- restriction enzyme analysis (PRA) and rpoB gene sequence analysis.

Results: *M. fortuitum*, *M. goodnae*, *M. lentiflavum* and *M. moriokaense* were the most isolated NTM in the waters of hemodialysis.

Discussion: *M. lentiflavum* has mainly clinical importance


in young children with cervical lymphadenitis and in immunocompromised patients. *M. moriokaense* first isolated from sputum of a patient with tuberculosis and from soil in Morioka, Japan. Despite its nonvirulent nature, there have been reports of clinically significant diseases caused by *M. goodnae*, including disseminated infections urogenital tract diseases, gastrointestinal tract infections, soft tissue damage, and respiratory and pulmonary infections.

Conclusion: This result demonstrates that dialysis water can be storage of transmission of potential NTM pathogenic among patients with weakened immunity. Suitable monitoring to ensure the best control over the dialysis water system is recommended.

Speaker Biography

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