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Poster Session V

Legionella: news in clinical and molecular epidemiology

COLONIZATION OF LEGIONELLA SPECIES IN TURKISH BATHS

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Objective: The goal of this study was to evaluate the prevalence of *Legionella* species in Turkish baths in Alanya, Turkey, which is an important tourism center.

Methods: Water samples were obtained from water systems of 52 Turkish baths located in hotels from August 2003 to September 2013. Water samples were collected in 100 mL sterile containers and were concentrated by membrane filters with a pore size of 0.45 µm. Heat treatment was used to eliminate other microorganisms from the samples, which were then spread on buffered charcoal yeast extract agar plates and glycine, vancomycin, polymyxin, cycloheximide agar plates. Cysteine dependent colonies were identified by latex agglutination.

Results: Total 135 water samples were analyzed. The results were positive for *Legionella* in 11 (21.2%) out of 52 hotels' Turkish bath. *Legionella* species were detected in 18 (13.3%) of the samples. The most frequently isolated species were *L. pneumophila* serogroups 6 (55.6%) and 1(22.2%). The colony count was lower than 100 colony-forming unit (CFU)/100 mL in 9 samples, between 100 and 1,000 CFU/100 mL in 5 samples, and higher than 1,000 CFU/100 mL in 4 samples.

Conclusions: This study suggests that Turkish bath' water system may also cause Legionnaires disease.