Potable water as a cause of sporadic cases of community-acquired legionnaires' disease

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Abstract

BACKGROUND. The environmental sources of sporadic, community-acquired legionnaires' disease are largely unknown, and culturing of water sources after identification of a case is currently not recommended. We conducted a prospective study of sporadic cases of community-acquired legionnaires' disease to determine whether the environmental reservoirs could be identified. METHODS. We cultured samples of potable water obtained from sources to which each of 20 patients with culture-confirmed, community-acquired legionnaires' disease had been exposed during the two weeks before the onset of symptoms. Monoclonal-antibody subtyping and restriction-endonuclease analysis were performed on the legionella isolates recovered from both the patients and the associated environmental cultures. RESULTS. For 8 of the 20 patients, isolates of Legionella pneumophila with identical subtypes were identified in cultures from both the patient and the potable water to which the patient had been exposed. The environmental reservoirs linked to the infections were the water supplies of two private residences, two nursing homes, two hospital outpatient clinics, and an industrial plant. CONCLUSIONS. Potable-water supplies that harbor L. pneumophila are
an important source of community-acquired legionnaires' disease. Future studies should include attempts to identify the environmental sources of this infection.

Source Information

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This article has been cited by other articles:

- Che, D, Decludt, B, Campese, C, Desenclos, J C (2003). Sporadic cases of community acquired legionnaires' disease: an ecological study to identify new sources of contamination. *J Epidemiol Community Health* 57: 466-469 [Abstract] [Full Text]