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Bartonella quintana Infection Among Homeless

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Bartonella quintana first was identified as an important human pathogen during World War I, when it caused epidemics of louse-borne trench fever that affected an estimated 1 million troops in Europe. *B. quintana* infections rarely were recognized from the end of the war until the 1980s, when the organism re-emerged as an opportunistic pathogen among HIV-infected persons.

B. quintana has emerged among homeless persons in North America and Europe. In 1993, the organism first was isolated from the blood specimens of 10 patients at a single hospital in Seattle, Washington, within a 6-month period. These patients had ill-

nesses characterized by fever and persistent bacteremia. Endocarditis developed in two patients, one of whom required a heart valve replacement. All 10 patients had chronic alcoholism, eight were homeless, and the six who were tested for HIV were HIV negative. These six were the first cases of invasive *B. quintana* infection among HIV-negative persons reported in the United States.

As a follow up to this Seattle outbreak, Dr. Lisa Jackson and Dr. David Spach, from the University of Washington in Seattle, conducted a seroprevalence study of anti-*Bartonella* antibodies among 192 patients at a community clinic in the "skid row" section of Seattle, which serves a primarily homeless and indigent population. *B. quintana* IgG titers ≥ 64 were detected among 39 (20%) of the 192 clinic patients.

The researchers note that multiple factors likely have contributed to the emergence of *B. quintana* among the homeless, including those related to disease transmission, host susceptibility, and ability to detect the organisms. For example, transmission of *B. quintana* from human to human by the body louse has been documented experimentally.

As with other emerging infectious diseases, further efforts to identify, evaluate, and control these infections will require coordinated effort of clinicians, microbiologists, and public health officials.

FROM: Jackson LA, Spach DH. Emergence of *Bartonella quintana* infection among homeless persons. *Emerg Infect* 1996;2(2):141-143.