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Abstract (publication only)

Detection of *Borrelia burgdorferi sensu lato* in urine specimens from patients with early and late Lyme borreliosis

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Objectives. Detection of *Borrelia burgdorferi* by polymerase chain reaction (PCR) in blood from patients with Lyme disease is often not enough effective to ensure reliable diagnosis. The aim of this study was to investigate appropriateness of urine and blood specimens for diagnosis of Lyme disease by PCR. **Methods.** Urine and blood samples from 228 patients with symptoms attributable to Lyme disease were investigated by PCR. Of them, 81 patients were with typical erythema migrans and were not treated with antibiotics, 92 were with treated with antibiotics erythema migrans and 55 presented with symptoms of early disseminated and late Lyme borreliosis. **Results.** *B. burgdorferi* was detected only in patients with untreated erythema migrans. The diagnosis was confirmed in 10 (12.3 %) of 81 patients. The etiologic agent was detected in urine of 4/59 (6.8%) patients and in blood plasma of 6/81 (7.4 %) patients. **Conclusion.** Our results demonstrated that *B. burgdorferi* could be detected by PCR before specific IgM antibodies appearance and that PCR testing of urine samples may add to effectiveness of this diagnostic method in Lyme disease confirmation.