Lyme disease (LD) and human granulocytic anaplasmosis (HGA) are anthropozoonoses that occur in the same geographical areas and are transmitted to humans by the same species of ticks of the genus Ixodes. While the extracellular pathogen of LD, spirochete Borrelia burgdorferi, and symptoms, course, diagnosis and treatment of the disease are well known, the HGA is one of the new and less known diseases. HGA is caused by an obligate intracellular bacterium Anaplasma phagocytophilum and the disease most often presents as a febrile illness accompanied by other nonspecific symptoms, including chills, fatigue, muscle pain, joint pain and headaches. An untreated infection can cause organ involvement, particularly of respiratory, gastrointestinal and the nervous system. Laboratory signs of infection include changes in the blood count - leucopenia, anemia, thrombocytopenia, and elevated liver enzymes. Among cases reported from North America , there is a higher portion of symptomatic and severe cases,, with some reported deaths. In Europe, the course of HGA tends to be mild or asymptomatic. The percentage of ticks containing anaplasma DNA in Europe is high, there is also a high prevalence of anaplasma antibodies in wild animals. Seroprevalence especially in the high-risk population in our country and in Europe is high. In connection with LB anaplasma infection can be expected as a co-infection in the case of EM, due to the incubation period and the course of both diseases. Anaplasma coinfection was found in 29.5% of patients from the entire population, mostly in patients with erythema migrans. The course of anaplasmosis was mild to asymptomatic.
Borrelia burgdorferi plays an important etiopathological role not only in skin manifestations of LD but also in related dermatoses.