Abstract

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Title: Laboratory methods of detection of *Borrelia burgdorferi* in clinical material
Bachelor thesis
Field of study: Medical laboratory technician, attendance study form

Background: Summarize the main finding of the known Lyme borreliosis. Individual chapters deal with the history of the disease, etiology, epidemiology, pathogenesis, prevention, clinical picture, treatment and diagnosis. Greater attention is being paid to the possibilities of today's laboratory diagnosis of the disease and its issues. The aim of the practical part is to provide a statistical overview of the disease in Hradec Králové.

Methods: Statistical analysis of the data of patients who were examined by indirect ELISA method to detect antibodies of borrelias at the University Hospital in Hradec Králové. Analysis was performed in a professional statistical software. Results of the analysis are given in tables and for better orientation in graphs as well.

Results: From 7067 cases were 70,9% negative and 28,1% positive. The acute phase was the most common stadium. Women were more affected (55,1%) than men (44,9%). The average age of woman was 60 to 69 years and men 50 to 59 years. September was the most common month of sampling. The analysis demonstrated the highest prevalence of primary diagnosis A69.2 (lyme disease) and serum was the most common biological material used for examination.

Conclusions: Lyme borreliosis is a widespread disease that can causes serious after-effect. Laboratory results always not correspond with clinical picture of the patient. It is necessary comprehensive approach. Results of statistical analysis are consistent with the facts reported in the literature.