Abstract


Vitamin A, E and C serum concentration in patients with Borrelia burgdorferi antibodies--non-symptomatic carriers


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OBJECTIVE: To estimate vitamin A, E and C serum concentrations among forestry workers showing antibodies against Borrelia burgdorferi presence. Vitamins A, E and C concentrations were evaluated in 117 sera of forestry workers.

METHODS AND RESULTS: 78 persons aged 18-63 (x=43.07) showed antibodies against Borrelia burgdorferi presence. In this group 13 persons showed presence of IgM, 42 persons with IgG and 23 with IgM and IgG. Control group consisted of 39 persons aged 18-56 years (x=40.97), with no detectable anti-Borrelia burgdorferi antibodies in serum. Serologic diagnosis was performed with use of ELISA kit - Borrelia recombinant IgM, IgG (Biomedica, Austria). Vitamins A and E serum concentrations were detected by RP-HPLC method with spectrophotometric detection (De Leenheet and co.). Vitamin C was detected by RP-HPLS method with spectrophotometric method (Ivanovic and co). Obtains results were statistically analysed. Significantly lower of vitamin A and E serum concentration of persons with anti-borrelia antibodies presence. The lowest concentration was observed in group showing presence of IgM and IgG. No significant difference in vitamin C serum concentration in examined groups was observed.

CONCLUSIONS: These results may suggest that low serum concentrations of vitamin A and E may have influence on Borrelia burgdorferi infection development.

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