UCD: 616.98:579.834.114:613.6:630

SEROPREVALENCE OF LYME BORELIOSIS IN FORESTRY WORKERS FROM TERNOPIL REGION

Mariia Shkilna, Mykhailo Andreychyn, Mykhailo Korda, Ivan Klisch, Natalya Vasylyeva, Olena Pokryshko

SHEI "Ternopol State Medical University Horbachevsky MOH of UKRAINE"

nadiya20743@gmail.com

Introduction and study objectives Lyme borreliosis (LB) is the most common tick-borne disease in Europe and USA. Ukraine is a country in Eastern Europe. The forested area in Ukraine is 9.4 million ha, or 15.6% of the total land area. Since forests and woods are preferred ecosystems of ticks, the risk of contacting diseases transmitted by ticks is higher among forestry workers, farmers and other people working in wooded areas.

According to the Order of the Minister of Health of Ukraine N133 of 19.07.1995, Lyme borreliosis is officially classified as a group of especially dangerous infections. However, in Ukraine Lyme borreliosis is not officially recognized as an occupational disease, and thus forestry workers do not receive appropriate social security coverage.

Registration of Lyme disease in Ukraine began with 2000. The incidence of this disease in the country is growing every year, with 58 cases reported in 2000, until 3728 cases in 2016.

A western part of Ukraine, including the Ternopil area, is endemic region for Lyme borreliosis, as located in a zone with fertile soils, moderate continental climate; forest a landscape; that promotes maintenance in the wild the main tick vectors of *Borrelia burgdorferi sensu lato* – Ixodes ricinus ticks. Territories of Ixodes ricinus ticks borreliosis are educed in 57 settlements of 15 districts of the Ternopil area.

The objective of the present study was to assess the risk of Lyme borreliosis among the forestry workers of Ternopil region, using serological tests.

Sera of 348 foresters (aged 17 to 75 years) from 5 subordinate forestry inspectorates (Berezhany, Ternopil, Chortkiv, Buchach, Kremenets) of Ternopil region, were examined for the presence of anti-Borrelia burgdorferi s.l. antibodies

with the use of ELISA test, determining the level of specific IgM and IgG immunoglobulins (Euroimmun AG, Germany). The test was carried out according to producer's instructions.

In 150 out 348 of the examined forestry workers (43.1 %), the presence of specific IgG and/or IgM antibodies against Borrelia burgdorferi sensu lato was detected by ELISA test.

Absence of the official recognition of Lyme borreliosis as an occupational disease in Ukraine makes it even more crucial to study prevention methods and communicate them among professional groups working in wooded areas.