

eP078

ePoster Viewing

Lyme borreliosis

ERYTHEMA MIGRANS AND RE-INFECTION WITH BORRELIA BURGdorFERI SPECIES - ANALYSIS OF PATIENTS WITH EARLY FORM OF LYME DISEASE IN THE NORTH-EASTERN POLAND

A. Moniuszko¹, S. Pancewicz¹, K. Guziejko¹, J. Dunaj¹, R. Swierzbinska¹, M. Kondrusik¹, S.

Grygorczuk¹, P. Czupryna¹, P. Aleksiejczuk², J. Zajkowska¹

¹Department of Infectious Diseases and Neuroinfections, Medical University of Bialystok, Bialystok, Poland ; ²Department of Dermatology and Venereology, Medical University of Bialystok, Bialystok, Poland

Objectives

To analyze the epidemiological data, clinical picture, diagnostic methods results of patients with erythema migrans (EM), with a special attention to re-infected patients.

Methods

209 patients (86 women, 123 men; mean age: 48.6±15.8 yo, 125 (59%) inhabitants of cities) with EM were included to the study. All patients had PCR and 160 patients had serology for *Borrelia* spp. performed. 144 patients had PCR in skin biopsy performed. Epidemiological data, clinical picture, diagnostic methods results were analyzed. 39 people who were re-infected 1 to 20 years after the first infection were re-analyzed and compared to the whole group.

Results

144 (68%) of all patients remembered a tick bite. In 84 (40%) cases the disease was work-related. The most often patients were admitted in May-July. 109 (52%) patients removed tick by themselves; the rest went to surgeon or GP. The mean time to onset of symptoms was 2.7±4.3 weeks. The mean diameter of EM was 13.5 ±8.6 centimeters. 11 (5%) patients had multiple EM. 70 (33%) patients suffered from headache, 59 (28%) from muscle pain, 31 (14%) from joints pain, 54 (28%) from tiredness and 31 (14%) had fever. *B. burgdorferi* DNA was detected in 30% of the skin biopsy and in 2% of blood samples. IgM anti/*B. burgdorferi* specific antibodies were present in serum of 26% of patients and IgG in 23%. In 70% of PCR positive patients duration of the disease was shorter than <14 days.

In group of re-infected patients 30 (76%) of patients remembered a tick bite. In 24 (61%) cases the disease was work-related. The most often patients were admitted in May-July. 20 (51%) patients removed tick by themselves. The mean time to onset of symptoms was 2.7±4.1 weeks. The mean diameter of EM was 13±8.7 centimeters. 3 (10%) patients had multiple EM. 15 (38%) patients suffered from headache, 10 (25%) from muscle pain, 8 (20%) from joints pain, 16 (41%) from tiredness and 1 (2%) had fever. *B. burgdorferi* DNA was detected in 38% of the skin biopsy and 0% of blood samples. IgM anti/*B. burgdorferi* antibodies were present in 35% of patients and IgG – in 33% of patients.

Conclusions

1. Re-infection with *Borrelia burgdorferi* still is a common problem in clinical practice.
2. Epidemiological data, clinical picture, diagnostic methods results showed difference in work relation, frequency of multiple EM and general symptoms, serological tests results between patients infected for the first time and re-infected.
3. PCR of skin biopsy specimens seems to currently be the most sensitive and specific test for the diagnosis of patients with EM, especially in patients with a short duration of the disease and may be an alternative method for re-infected patients, who were immunized before (due to similar sensitivity).

