

eP079

ePoster Viewing

Lyme borreliosis

CLINICAL AND MICROBIOLOGIC CHARACTERISTICS OF SLOVENIAN PATIENTS WITH BANNWARTH'S SYNDROME

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Objectives. To obtain clinical and laboratory data on patients with Bannwarth's syndrome and to assess the outcome of the illness after antibiotic treatment.

Methods. Adult patients diagnosed with Bannwarth's syndrome (painful borrelial meningoradiculitis) between October 2005 and November 2012 were included in this prospective study. The epidemiologic, clinical, and microbiologic findings were evaluated at the initial visit and during one-year follow-up period; the assessment included control lumbar puncture 12 weeks after the first CSF examination.

Results. 69 patients, 35 males and 34 females, median age 56 years, were included in the study. Median duration of their neurological symptoms was 30 days. All the patients reported radicular pain; the pain was located at the site of present or past erythema migrans in 65% of patients with the skin lesion (altogether 40/69 reported having had erythema migrans in the course of the disease). The other main complaints were sleep disturbances (reported by 75.4% of patients), headache (49.3%), fatigue (44.9%) and paresthesias (33.3%). At presentation erythema migrans was visible in 19/69 (27.5%) patients, while the frequencies of other findings were as follows: peripheral facial palsy 37.7%, meningeal signs 18.8%, tremor 4.3% and paresis 2.9%. Median CSF leukocyte count was 133 (8-1179) x 10⁹/L with lympho/monocytic predominance. Serological testing revealed the presence of borrelial IgM and/or IgG antibodies in serum in 97.4% and in CSF in 94.4% of patients, while intrathecal synthesis of borrelial IgM and IgG antibodies was demonstrated in 65.7% and 88.6% of patients, respectively. Borreliae were isolated from CSF in 11/69 (15.9%) patients, from blood in 2/67 (3%) patients and from skin in 11/27 (40.7%) patients. *Borrelia garinii* was far the most frequent isolate from CSF and skin samples, however, both blood isolates were identified as *Borrelia afzelii*. After a 14-day antibiotic treatment (68 patients received ceftriaxone 2g o.d., i.v., one patient was treated with oral doxycycline 100mg b.i.d.), complete or partial improvement was reported by 94.2%, 98.5%, 100% and 100% patients at 2-weeks, 3-months, 6-months and 12-months follow-up visit, respectively. Control lumbar puncture 3 months after the first CSF examination was performed in 67/69 (97.1%) patients; median CSF leukocyte number was 6 (0-27) x 10⁶/L. CSF leukocyte count diminished in all patients, however, in 53.7% it was >5 x 10⁶/L and in 22.4% >10 x 10⁶/L. Intrathecal synthesis of borrelial IgM antibodies was present in 50% and IgG in 90.6% of patients, including two patients with absent intrathecal synthesis of specific antibodies at the first CSF examination.

Conclusions. Our findings corroborated previous information on clinical characteristics of Bannwarth's syndrome, indicated good outcome of the disease after antibiotic therapy, and enabled assessment of the value of *Borrelia* culture and intrathecal synthesis of specific antibodies for the diagnosis of Lyme neuroborreliosis.