

Call For Abstracts

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Category (check one):

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VERTIGO AND LYME BORRELIOSIS

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Cranial neuropathies are common among patients with Lyme neuroborreliosis (LNB). Most attention has been focused on VII cranial nerve, facial nerve being the most common cranial nerve affection in early and late LNB. Along with facial nerve any other cranial nerve can be affected by neuroborreliosis.

The aim of this prospective, epidemiological study was to present the incidence of Lyme borreliosis among patients suffering for vertigo with special concern to minimize false positive results. Between January 1993 and November 1994 together 1783 consecutive patients visiting the ENT clinic of the University Hospital of Helsinki with vertigo as sole or major symptom were included to the study. All the patients were surveyed with the ELISA-technique for possible IgM and IgG antibodies against *Borrelia burgdorferi* (Bb). On admission a careful oto-neurological examination was carried out and all the patients were examined with otoneurological and audiological test battery. Sera from seropositive patients were further examined by immunoblotting to determine their antibody binding capacity and to confirm the serological result. Spinal tap was performed and cerebrospinal fluid examined for inflammatory changes, antibodies against Bb and with PCR-technique in 18 cases.

42 of the 1783 patients surveyed (2.8%) showed serum antibodies against *Borrelia burgdorferi* on admission. 27 of the patients were men and 15 were women. In 21 cases the vertigo was rotational, positional in 8 cases and undefined in 13 cases. Antimicrobial treatment was given to 11 of the 42 seropositive patients because of confirmed or suspected LNB. Antimicrobial treatment used was 2.0 g keftriaxone intravenously once a day for two weeks. Criteria for the treatment included preceding erythema migrans in five, positive immunoblotting result in seven, previous tick bite in nine cases and positive serum PCR finding in one case. None of the patients treated with keftriaxone had inflammatory changes or antibodies against Bb in their cerebrospinal fluid samples. The therapeutic effect was good (vertigo disappeared along the treatment) in 9 cases, poor (no effect on vertigo) in one case and not known in one case. Median follow-up time has been 12 months.

In contrast to previous publications this study presents rather low incidence of Lyme borreliosis among patients with vertigo. Vertigo can be the presenting sign of the LNB and must be kept in mind in differential diagnosis of vertigo.

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