Presumed Lyme borreliosis: patients with confirmed Lyme borreliosis are less symptomatic than other patients

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**Background:** Clinical expression of Lyme borreliosis (LB) is varied. Little is known about functional symptoms present in LB in Europe. The aim of this study was to describe functional symptoms reported in patients with presumed LB and to compare the frequency of these functional symptoms between patients with and without confirmed LB.

**Materials/methods:** Between November 2015 and June 2018, all consecutive adult patients consulting in an infectious disease department for presumed LB were included. A standardized clinical assessment was performed for all patients. The 2011 European classification for Lyme borreliosis was used.

**Results:** We included 355 consecutive patients (mean age 51 +/- 19 years, 52% of women) of which 48 had LB: erythema migrans in 20 (42%) cases, early disseminated Lyme borreliosis in 24 (50%) cases (17 patients with neuroborreliosis, 3 multiple erythema migrans, 1 arthritis, 1 lymphocytoma and 2 others) and late disseminated Lyme borreliosis in 4 (8%) cases. In patients with confirmed LB, the most frequently reported functional symptoms were neuropathic pain (23%), arthralgia (23%) and asthenia (17%). Other functional symptoms were rare (≤ 10%). Patients with confirmed LB reported less often functional symptoms than patients without LB (1.8 (+/-1.7) vs 3.6 (+/-2.5), p<0.001) with a shorter time since onset of LB-related symptoms (less than three months in 48% vs 16% of cases, p<0.001). They reported less often asthenia (17% vs 59%, p<0.001), widespread pain (10% vs 31%, p=0.003), myalgia (10% vs 32%, p=0.002), memory impairment (4% vs 16%, p=0.03), irritability (2% vs 23%, p<0.001) and sadness (0 vs 16%, p=0.003).

**Conclusions:** This prospective, monocentric study showed that functional symptoms were fewer and present for a shorter period of time in patients with confirmed LB compared to other patients consulting for presumed LB.