

P1354 **Lyme in Turkey: underestimated or over-diagnosed?**

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Background: The prevalence of Lyme borreliosis (LB) is not known in Turkey. The evidence on the seroprevalence and the accuracy of clinical diagnosis is limited, however according to the media reports, there are millions of LB patients. We performed a meta-analysis to evaluate the current clinical and epidemiological data regarding LB in Turkey.

Materials/methods: We used Turkish Medline and Pubmed databases to search the literature between 1990 and 2017 using the keywords Lyme, Lyme disease, Borrelia, borreliosis, Ixodes and surveyed bibliographies of pertinent publications to reach regional Turkish articles. Existing data was evaluated according to IDSA and CDC criteria. The published literature was grouped in 3 focus categories: (1) clinical cases of LB, (2) serological *Borrelia burgdorferi* prevalence in humans, and (3) prevalence of *Borrelia burgdorferi* infected ticks.

Results: A total of 114 full articles were reached, 64 of which were excluded due to their irrelevance to our focus categories. Our results for each category are as follows: (1) A total of 77 LB cases were identified. According to CDC and IDSA criteria, the diagnosis of 34 (44%) was confirmed whereas 3 (4%) remained suspected. 25 of 41 excluded cases were the reports of atypical skin and ocular pathologies not defined or considered by the guidelines. (2) ELISA was the primary screening test in 11 of 13 (84.6%) seroprevalence studies. However, only 5 (38.5%) of the studies confirmed their results with western immunoblot (WB) test. Among 12 cities, the seroprevalence of LB varies between 0.5-33.7% and 0-14.5%, according to the ELISA and WB results, respectively. (3) A total of 1803 Ixodes ticks from 14 cities were analysed, and 121 ticks out of 1803 (6.7%) were infected with *Borrelia burgdorferi*.

Conclusions: We could not find evidence that would support the exaggerated number of cases presented by media. Diagnosing LB is more problematic than its treatment. Non-adherence to international guidelines and overdiagnosis of LB by clinicians is the major problem. The rate of *Borrelia burgdorferi* infection of ticks (6.7%) was found to be moderate. Discordance between seroprevalence and clinical studies necessitates further attempts for an overall picture of LB in Turkey.