

O1202 Human trichinellosis in Turkey: a hospital-based 15-year retrospective serological analysis (2004-2018)

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Background: *Trichinella* nematodes acquired by consumption of raw meat from several animal species result in trichinellosis, a worldwide parasitic infection. Diagnosis of trichinellosis is a challenging because of nonspecific signs and symptoms. Especially if the infection is not endemic and no outbreak has been reported; it is often unrecognized and underreported. Although Turkey is among at-risk regions, trichinellosis infections are rarely encountered.

Materials/methods: We have retrospectively investigated 979 sera sent to our department for the serological diagnosis of human trichinellosis over a period of 15 years (2004-2018).

Between 2004 and 2010 a total of 166 patients were tested using a commercial *Trichinella* ELISA kit and 12 of them were found positive. During these years Western Blot (WB) test was used as a confirmatory test in 13 patients. Between 2010 and 2018, WB test was used as the primary diagnostic test, and out of 813 patients tested 32 of them were found to be seropositive. In all of the positive serum samples three *Trichinella*-specific Western Blot bands between 52 and 70 kDa band range were demonstrated.

Results: During this period, *Trichinella* seropositivity was detected in 4.49% (44 out of 979) of the patients. Ages of the seropositive patients ranged from 10 to 79 years (mean age: 39,23 years). Of these 44 cases, 25 (56.8%) were males and 19 (43.2%) were females. During the study period, the highest prevalence of the disease (10.09%) was recorded in 2004 because of an outbreak of trichinellosis occurred in Izmir.

Conclusions: The prevalence of trichinellosis is likely to be highly underestimated in Turkey because of majority of the human population is Muslim and eating of pork is prohibited in Islam. Although after the large 2004 outbreak in Izmir, Turkey, serological methods have been implemented for routine diagnosis of trichinellosis and new familial and sporadic cases detected. The results of this study show that human trichinellosis is still a public health problem in Turkey.

