

Human *Dirofilaria repens* infection in Ukraine, an emergent zoonosis

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BACKGROUND: The filarial nematode *Dirofilaria repens* is an etiological agent of dirofilariasis, a vector-borne zoonosis. In Ukraine, dirofilariasis has been known for a long time. Since the first case of human dirofilariasis repens was noted in 1927, 68 cases were registered up to 1996. Within the more recent years the number of infected people have increased substantially. Our aim is to evaluate the current epidemiological situation of *D. repens* causing human infections in Ukraine.

METHODS: The epidemiological data covering the period of 1997–2013 have been analysed. Data have been collected from the reports of all 27 regional sanitary-epidemiological stations owned by the Ministry of Health of Ukraine.

RESULTS: Within a period of 17 years, 1997–2013, 1709 confirmed human cases of *D. repens* dirofilariasis have been registered. Infections were noted in all the oblasts of Ukraine plus Crimea, Kyiv, and Sevastopol. The majority of the cases were noted in Kyiv (176), then the oblasts of Donetsk (158), Zaporizhzhya (149), Dnipropetrovsk (147), Kherson (121), Mykolayiv (113) and Chernihiv (111).

CONCLUSIONS: The results of our analysis point to a steady increase in *D. repens* dirofilariasis infections of humans in Ukraine, underscoring the growing status of this as a significant emerging infectious disease.