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BOOK OF ABSTRACTS



HUMAN *DIROFILARIA REPENS* INFECTION IN UKRAINE, CURRENT DATA ON EPIDEMIOLOGY

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BACKGROUND: *Dirofilariasis* caused by the nematode *Dirofilaria repens* is a transmissible zoonotic disease. The number of infections in Europe has been increasing recently and *D. repens* has become one of the most rapidly expanding parasites of people and animals. In Ukraine the cases of *dirofilariasis* are a subject of epidemiological registration and are recoded in the state register that covers all Ukraine (Sařamatin *et al.* 2013; *Acta Parasitologica* 58(4): 592–598).

METHODS: The analysis of literature sources covers the period since 1927 (first record) up to 1974. The epidemiological data collected from the reports of all 27 regional sanitary-epidemiological stations covering the period of 1975–2013 have been analysed. A detailed analysis of clinical data gathered during the last 5 years (2009–2013) was conducted.

RESULTS and DISCUSSION: In the period 1927–2013 in Ukraine there was registered 1787 cases of human infection. These include 1009 cases within 2009–2013. Infections were noted in all the regions of Ukraine. The majority of the cases were noted in Kyiv, followed by the oblasts of Donetsk, Zaporizhzhya, Dnipropetrovsk, Kherson, Mykolayiv and Chernihiv.

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Parasites in the Heart of Europe

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Analysing clinical data of 1009 cases, it was determined that in 653 cases (64.7%) the parasitic lesions were located in the head, including 406 cases of lesions around the eyes. *Dirofilariasis* of the limbs and torso constituted a lower percentage of cases – 15.0% and 11.0% respectively. *D. repens* were also detected in the sexual organs of men (40 cases), and in female mammary glands (26 cases). In 28 cases (2.8%) the location of the parasite was not specified in the data. The age of patients was from 11 months up to 90 years.

It seems interesting that despite the fact that endemic regions of *D. repens* are located in many areas in Europe, the total number of cases described in Europe without Ukraine is surprisingly low – ca. 600 (Masny *et al.* 2012; *Parasit Vectors* 6: 38) compared to Ukraine's.

CONCLUSIONS: The Ukrainian sanitary-epidemiological services managed to achieve some measure of success, one of which is creating a system of registering *D. repens* infections in Ukraine. Therefore, it appears that in order to achieve a proper outlook on the epidemiological situation, it would be necessary to introduce mandatory registration of *D. repens* *dirofilariasis* cases in the EU countries.