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## Letter to the Editor

### Human dirofilariasis due to *Dirofilaria repens* in the Russian Federation—remarks concerning epidemiology



A valuable contribution to the knowledge on *Dirofilaria repens* dirofilariasis in the Russian Federation was recently published.<sup>1</sup> However, the epidemiological part of the manuscript requires some comments. The authors compared the number of human dirofilariasis cases described up to 2011 in Russia to the number of human *D. repens* infections described worldwide up to 2000 – 701 and 782 cases, respectively.<sup>2,3</sup>

Such a comparison is confusing. Only 69 of 782 described cases originated from Russia in the review cited by the authors.<sup>3</sup> These data were indirectly confirmed by Russian sources. Between 1915 and 2001, 264 cases of human dirofilariasis were recorded in Russia, however, almost half of those cases (43%) occurred during the last 3 years of the period analyzed (1999–2001).<sup>4</sup> The accuracy in choosing the time frame for comparison is of great importance because at the turn of the 21<sup>st</sup> century, a dramatic increase in the number of reported human dirofilariasis cases was recorded in central and eastern Europe,<sup>5–7</sup> including Russia<sup>8</sup>. For example, in Ukraine, 1465 new cases were reported between 1997 and 2012.<sup>9</sup> Interestingly, the border between Russia and Ukraine divides the regions with the highest numbers of detected human *D. repens* infections in both countries.<sup>10</sup> Therefore, in our opinion, in the analysis of the epidemiological situation of dirofilariasis in Russia, it would be important to consider the epidemiological data from Ukraine in order to get a better understanding of the problem.

The authors' hypothesis, presented also as a conclusion, was that the trained Russian police and armed forces dogs might serve as epidemiologically important 'amplifiers' of dirofilariasis in the former Soviet Union countries. Unless more of the dogs were exported abroad to Ukraine than sent to the various regions within Russia, the two-fold higher number of cases of human dirofilariasis in Ukraine compared to Russia would suggest that factors other than the trained Russian dogs contributed predominantly to the changes in epidemiological situation in the former Soviet Union countries.

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