

## Subcutaneous/Ocular Dirofilariasis: An Emerging or Re-Emerging Disease

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Subcutaneous/ocular dirofilariosis, caused by *Dirofilaria repens*, is a disease that primarily affects dogs and humans around the world. It is a vector-borne disease involving practically the same species that affect heartworm disease (*Culex* spp., *Aedes* spp., *Anopheles* spp., etc). As regards its clinic, it presents a local inflammation generally at the subcutaneous level in the form of a nodule with worms encapsulated inside it. The second most frequent form is the presence of non-encapsulated worms in the ocular location [1]. Other locations have also been reported, such as head, neck, male reproductive organ and others [2].

In the last 15 years there has been an increase in reports of cases and studies related to this disease. In Europe, the countries bordering the Mediterranean sea have been considered endemic for years. Today, subcutaneous/ocular dirofilariosis is present in areas of central and northern Europe, where the number of cases in these regions has increased considerably, mainly in Ukraine and Russia [1,3,4]. There is a notable increase in the number of reported cases in the last 10 years, an increase in the number of countries where these cases are reported and a bad prognosis in some of them.

There are several factors that influence the situation of subcutaneous/ocular dirofilariosis [1,5]. The increase in the number of cases, the appearance of new endemic areas and their expansion into colder areas could be influenced by the following factors: optimal environmental conditions for the breeding of vectors, increase in global temperatures, which leads to an increase in the transmission period of heartworm disease and a reduction in the incubation period of larvae in mosquitoes, colonization by vectors of areas where they did not exist before, occupation or human urbanization with pets in places where there were previously vectors, increase in the number of trips with pets, do not use adequate control measures and incorrect use of them, and increase in alert and interest in certain places where, previously, they did not exist.

It is necessary to further promote projects and studies that address this problem, which begins to be very serious in certain regions of central, northern and mainly in southern Europe.

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