



## I-11. UPDATE AND TRENDS IN FELINE EPIDEMIOLOGY

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The epidemiology of canine heartworm disease is well known in Europe. It is known that it is an emerging disease, expanding for at least 15 years. However, the number of publications on the epidemiology of feline heartworm is still scarce. Even in those countries considered endemic, studies on the feline species are very few and not widespread, often limited to the study of clinical cases. Among the reasons, there is the difficulty in diagnosing this pathology in the feline species. Also, that the symptoms are often confused with other more frequent respiratory diseases. Furthermore, many cats tolerate the infection without any noticeable clinical signs or with signs manifested only transiently; sometimes, sudden death may arise without warning. Although timidly, the number of studies has been increasing, thanks to a greater awareness of the disease in this species, outlining an epidemiological picture of feline heartworm similar to that of canines, demonstrating the spread of this parasitic disease among cats as well. Its presence is consolidated in endemic countries such as Spain, Portugal, Italy and Greece, where published studies are increasing. In Spain, a recent study has reported a seroprevalence of 9.4%, with a similar distribution to canines: the highest seroprevalences were reported in the Canary Islands (19.2%), Balearic Islands (16%) and Mediterranean coast (9.2–11.2%). The case of the Canary Islands is especially noteworthy, where an increase in seroprevalence in cats has been observed over the years, contrary to what happens in dogs. On the other hand, cases have also been described in the north of the country, until recently considered free of the disease. In Portugal, feline prevalence studies are relatively recent, but demonstrate the important presence of this parasite in the cats living in the country. The different seroprevalences reported varied from 15% in the center of Portugal, 17.5% in the north-center, 5% in southern Portugal, or recently a prevalence of 3.5% in Madeira, an island of which a high prevalence in dogs was already known. In Italy, *D. immitis* is endemic in northern Italy and has now spread all over the country, which shows a current change of distribution of this parasite throughout the Italian territory while canine and feline heartworm infection is more frequently diagnosed in southern regions. Feline heartworm showed varied prevalences in northern Italy, between 7 and 27%. In regions of central Italy heterogeneous prevalences were reported as well (from 0.3% to 23.5%). Furthermore, new infections have been reported in southern Italy. In Greece, the first feline study was carried out in the north of the country, reporting a prevalence of 3%. The first descriptions are also beginning to appear in new endemic countries: interestingly, microfilariae of *D. immitis* were detected in the urine, but not in the blood, of a cat in southern France. In Germany, a retrospective study from 2012 to 2020 identified heartworm in three cats in 2012, while in Austria, the first case of autochthonous feline heartworm is published in 2012. In Bulgaria and Romania, the first reports on feline *D. immitis* infection also have been documented.

### References

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