

Epidemiological study of vector-borne canine diseases in Spain (*Leishmania*, *Dirofilaria*, *Ehrlichia* and *Anaplasma*)

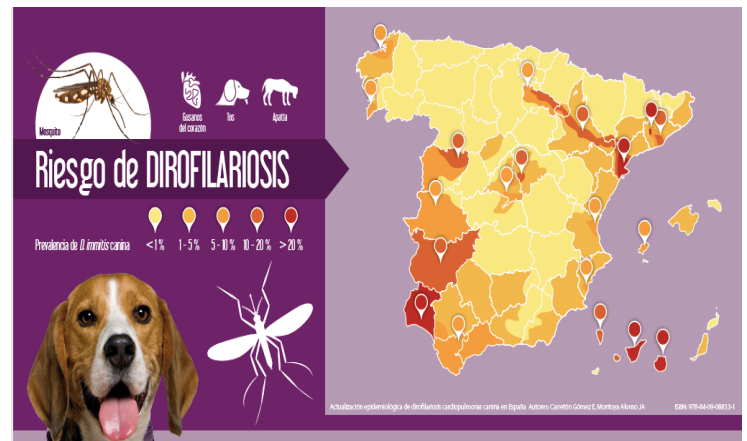
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INTRODUCTION

Currently, climate change, habitat modifications due to human activities, as well as an increase in the movement of reservoirs and new species of competent vectors, have contributed to the spread of diseases transmitted by canine vectors. These are mostly emerging and neglected diseases, some of them with zoonotic potential.

MATERIAL AND METHODS

The objective of this study was to evaluate the prevalence and distribution of four main canine vector-borne diseases (*Dirofilaria immitis*, *Leishmania infantum*, *Ehrlichia canis* and *Anaplasma platys*) in 1025 dogs from different provinces of Spain.



RESULTS

Of the dogs studied, 17.2% were positive for one or several diseases, with positive dogs being observed from 6 months of age. The seroprevalences obtained were 2.4% for *D. immitis*, 10.8% for *L. infantum*, 2.3% for *E. canis* and 5.2% for *A. platys*.

Province	<i>Dirofilaria immitis</i> (%)	<i>Leishmania infantum</i> (%)	<i>Ehrlichia canis</i> (%)	<i>Anaplasma platys</i> (%)
Alicante	0	27	0	18,9
Bizkaia	0	1,9	0	1
Cáceres	2,9	14,3	2,9	8,6
Santander	5	0	5	5
Castellón	5,9	17,7	0	11,8
Oviedo	0	0	0	2,4
Girona	0	25	0	0
Guadalajara	0	0	0	0
Huesca	9,1	27,3	0	9,1
Coruña	0	2,9	1,4	2,9
Lleida	0	12,5	6,3	0
Lugo	1,4	0	0	0
Murcia	0	17,2	5,6	10,6
Navarra	2,8	16,7	0	5,6
Salamanca	7,4	2,1	2,1	2,1
Tarragona	9,9	17,6	3,3	6,6
Zaragoza	9,4	28,1	9,4	12,5
Valencia	0	9,7	2,8	2,8

CONCLUSION

A wide distribution was observed in all diseases. The results point to a lack of preventive measures to avoid infection, and the need to implement awareness campaigns between veterinarians and owners. Furthermore, close collaboration between veterinarians, physicians and health authorities would be necessary for these zoonotic vector-borne diseases.