

THE IMPORTANCE OF A CONTINUED SEROVIGILANCE IN THE CONTROL OF CANINE LEISHMANIOSIS. A COMPARISON OF TWO METHODS OF CONTROL*

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SUMMARY : *The principal objective of this paper was to research the seroprevalence and the epidemiology of leishmaniosis in dogs in the Comunidad Valenciana (Spain). Three different groups of dogs were studied : that were sourced from Animal Protection refuges, hunting kennels and dogs from veterinary clinics in urban areas. We have followed the protocols for leishmaniose's diagnosis of the World Health Organisation.*

We have compared two different programs of control for the affected dogs : Sacrifice (S) and typical antimonial's treatment (T). The preliminary result shows that no relation exists between the control method and the prevalence of this disease.

Keywords : *Dog, leishmaniosis, diagnosis, control.*

RÉSUMÉ: *L'objectif de ce travail a été de faire une sérosurveillance et une étude épidémiologique de la leishmaniose chez les chiens de la région de la Comunidad Valenciana. Les populations de chiens de fourrière (habitat péri-urbain), chiens de chasse -en meutes- (habitat rural), et consultants dans des cliniques vétérinaires (habitat urbain), ont été étudiées, selon le Document de protocoles techniques de lutte contre la leishmaniose de l'Organisation mondiale de la santé (O.M.S). En plus, nous avons voulu connaître l'efficacité de deux programmes différents de contrôle de ces animaux parasités (sacrifice, groupe S ou le traitement médical, groupe T). Dans notre cas, ce travail nous permet d'obtenir une conclusion préliminaire: il n'y a pas de relation entre la méthode de contrôle utilisée (S ou T) et l'incidence de cette maladie parasitaire chez les animaux étudiés.*

Mots-clés : *Chien, leishmaniose, diagnostic, prévention.*



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I - INTRODUCTION

Leishmaniosis is a disease of zoonotic character, originating in protozoos that belong to the genus *Leishmania*. Distributed at a world-wide level and of great importance in public health this disease affects in the actuality more than 14 million persons.

The dog acts as the principal reservoir of the disease in the Mediterranean basin, which makes essential the control of the disease through a premature diagnosis and the appropriate treatment. The improvements noted in an epidemiological evaluation are also fundamental in order to control the human

infestation. Each year, approximately 15.000 dogs are checked, the results showing a seroprevalence in the canine species of between 10 to 15%.

The object of this study is to compare the control measures of the leishmaniosis, comparing the prevalence in centres (S) that adopt a program of sacrificing those animals that are seropositive with centres (T) with a program that reduces the infecting capacity of the seropositives through diverse treatments.

Tableau I
Prevalence of canine *Leishmaniosis* in Spain

	Area/City	Prevalence	Reference
West	Galicia	1,6%	Alvar J.P., 1997
Centre	Navarra	4,4%	Castaneda <i>et al.</i> , 1999
	Madrid	4,7%	
	Castilla-Mancha	7%	
	Salamanca	10-15%	
	Caceres	10-20%	
Est	Cataluna	9-18%	Alvar J.P., 1997
	Valencia	19,8%	Abellan, 1997
	Alicante	3,7%	Dereure J., 2002
	Murcia	9,1%	Matas B., 1989
	Granada	8,8%	
	Islas Baleares	24-26%	

II - MATERIALS AND METHODS

The present study was carried out in various animal refuges in the Comunidad Valenciana. (Spain). For this reason a sample representative of the dog population was taken in the areas that may be considered as high risk (The Mediterranean area, peripheral urban zone, high density of animals, exterior habitat optimum for the vector, difficulties in the control of the state of health of the dogs, high

probabilities of contact vector-dog, constant incorporation of animals etc.).

A total of 106 dogs were studied that were from centres S and 109 centres T, without taking into account the seropositivity. In each of heparinizados serums, the prevalence of the leishmaniosis was studied using techniques of enzyme-immunoanalysis (ELISA) and of indirect immunofluorescence (IFI).

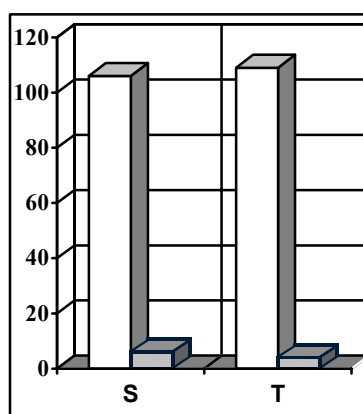
III - RESULTS AND DISCUSSION

Of the total 106 dogs from centres S, six animals were diagnosed as seropositive (5.7%), without showing specific signs of suffering from the disease. Of the total 109 dogs from centres T, four were found to be seropositive (3.7%) (figure 1).

Carrying out a chi-squared in order to observe whether a relation exists in the prevalence of the *Leishmania* spp with respect to the group of origin, the following value was found $\chi^2=0.34$ with a grade of liberty of (p>0.05).

Figure 1

Comparison between two methods of control of Leishmaniosis in dogs: sacrifice of infected animals (S) and medical treatment (T)



IV - CONCLUSION

In conclusion therefore, although other parameters will be analysed that affect these results and a prospective study is still pending that will permit us to know whether it should be

obligatory to sacrifice seropositive animals, in this study no relation has been observed between the positive results and the methods of control used in the canine species.

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