



Fact sheet

Canine leishmaniosis field trial

The efficacy of Advantix[®] (10% imidacloprid/50% permethrin) in a spot-on formulation was evaluated in the field as a control measure to prevent canine leishmaniosis in kennel dogs in an endemic area of Southern Italy.

Study design:

- The negative-controlled, partially blinded trial was conducted from February 2005 to April 2006 on dogs living in the Apulian region.
- During sand fly season (April to November 2005), Advantix[®] was administered either once a month (group A, Bari: 105, Ginosa: 104 dogs) or twice a month (group B, Bari: 101, Ginosa: 103 dogs) or not at all (untreated control group C, Bari: 109, Ginosa: 109 dogs).
- All the dogs were examined serologically and parasitologically for canine leishmaniosis prior to the start of the study (sand fly season), in November 2005 (end of sand fly season) and in March 2006 (end of the study) before the following sand fly season.

Study results:

- Out of 845 dogs initially tested for leishmaniosis, 209 animals (24.7%) already presented anti-leishmania antibodies with a relative prevalence of 23.3% in Bari and 26.1% in Ginosa.
- In untreated groups, incidence rates (new infection rate) of 9.1% (Bari) and 10.5% (Ginosa) per year were observed during the sand fly season.



- Both application regimes proved to be efficient in preventing canine leishmaniosis in the field:

Subgroups (frequency of application)	Bari (n=315 dogs)			Ginosa (n=316 dogs)		
	A (once a month)	B (twice a month)	C (control)	A (once a month)	B (twice a month)	C (control)
Number of infected dogs	1	-	9	1	1	11
Protection rates (%)	88.9	100	-	90.4	90.7	-

Relevance:

- The results clearly show that the combination of 10% imidacloprid/50% permethrin (Advantix[®]) in a spot-on formulation is highly efficacious in preventing canine leishmaniosis under natural conditions in endemic areas by virtue of its repellent activity against sand flies and other parasites.
- Dogs treated with both application regimes (i.e. once or twice a month) showed a very high percentage of protection, between 88.9 and 90.4% for group A and between 90.7 and 100% for group B. Thus dogs were protected from sand fly bites.
- It has been the first field study to evaluate the efficacy of 10% imidacloprid in combination with 50% permethrin against transmission of Leishmania from sand flies to dogs under natural conditions.

Reference: Domenico Otranto et al., Efficacy of a combination of 10% imidacloprid/50% permethrin for the prevention of leishmaniasis in kennelled dogs in an endemic area. *Veterinary Parasitology* (2007), doi:10.1016/j.vetpar.2006.09.012

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