

YOUR DOG IS AT RISK OF CONTACTING LEISHMANIASIS (KALA-AZAR DISEASE)



The percentage of dogs infected each year in Greece with Leishmaniasis ranges from 0.2 to 48.7%, depending on the area. The southern coastal area of Attika where SPAZ works is an area of high risk. Endemic in Mediterranean countries, the disease is now also spreading throughout Europe; France reports about 30,000 dogs infected. In Greece, the disease is rapidly spreading and putting all dogs at risk - the unknown number of homeless dogs as well as the 500,000+ dogs living in homes.

Read this to find out more

The information in this brochure was compiled from various medical sources and in particular from "Parasitic Diseases of Animals and Humans", by Prof S. Haralabidis, University Studio Press, Thessaloniki 2003. It was printed with a grant from GAWF – Greek Animal Welfare Fund, UK

1 What is canine Leishmaniasis?

Leishmaniasis (also known as Kala-azar and Dum Dum fever) is a dangerous disease in which parasites live in the liver, spleen and marrow and reproduce rapidly.

Ninety percent of cases also show cutaneous skin involvement. Complications set in when the immune system begins to break down. Without treatment, the parasitic infection results in death within two years of the dog becoming infected.

2 How is it spread?

The disease is carried by the sand-fly *Phlebotomus* spp, a tiny insect that lives primarily in the Mediterranean area. This sand-fly (female) bites dogs because she needs a blood meal in order to deposit fertilized eggs; if she bites an infected animal, she ingests the parasite, a protozoan parasite *Leishmania infantum* with the blood; 8 to 10 days after the infecting meal she can pass it on to other dogs she bites.

There is also evidence that Leishmaniasis can be transmitted without the sand-fly. Pregnant dogs may pass it on to their offspring through the placenta. The fact that the disease is showing up in countries where sand flies don't thrive is evidence that something other than this insect is spreading Leishmaniasis. There is a great deal of research going on at the moment; there are different opinions as to treatment protocol and how it is spread and the verdict is still out on many issues.

3 How can you tell if a dog has the disease?

AT FIRST, THERE ARE NO SYMPTOMS; ONLY A BLOOD TEST CAN DETECT IT. THAT'S WHY VETS RECOMMEND THAT YOUR DOG'S BLOOD BE TESTED ONCE OR TWICE A YEAR. DIAGNOSIS IS MADE BY IMMUNO-SEROLOGICAL TECHNIQUES IN SPECIALIZED LABORATORIES.

THE PROGRESS OF THE DISEASE IS SLOW WITH THE TIME BETWEEN INFECTION AND APPEARANCE OF SYMPTOMS VARYING BETWEEN A FEW WEEKS TO A FEW YEARS.

4 Are all dogs vulnerable to the disease?

YES! If an infected sand fly bites a dog, it will get Leishmaniasis; it doesn't matter what breed it is, how old it is or how healthy it is, it will get Leishmaniasis. The parasite can also infect other animals but it seems to prefer dogs; cats, in fact, are rarely infected. There is no vaccine for the disease.

5 What are the symptoms?

* OVERGROWN CLAWS, LONG AND ROUNDED * *enlarged lymph nodes, spleen and liver* * KIDNEY AND LIVER PROBLEMS * some areas have total hair loss * HAIR LOSS AROUND EYES MAKES THE DOG LOOK AS IF HE IS WEARING GLASSES

* scabs appear on body * ANEMIA * LOSS OF APPETITE OR BOULIMIA * fever
* NOSE EXCRETES WHITE DISCHARGE, NOSEBLEEDS * MUSCLES ATROPHY,
ESPECIALLY TEMPORAL * LOSS OF WEIGHT, EVEN IF ANIMAL EATS WELL *
dandruff on head and back * DULL FUR WITH PATCHY HAIR GROWTH *
GASTROENTERITIS, multi-arthritis and enteritis may also occur

6 Is there any treatment?

Yes.

Glucantime and/or Allopurinol (Zyloric or Zylapour) have been the drugs used for some years in Greece. Treatment can reduce the crisis, prolong the life of the dog and sometimes the dog can go into remission. Early diagnosis of the disease and early treatment is essential.

A new drug called Miltefosine (Miltiforan) is now also available in Greece. Studies conducted on dogs in Italy, Spain and France (by the French pharmaceutical company Virbac) have resulted in a percentage of the dogs being cured of the disease, but this is not guaranteed. You should contact your vet to see which procedure is the correct one to use on your dog.

If the same dog has signs of the disease in 3-4 years, Professor Haralabidis (U. of Thessaloniki) says that it means the dog was bitten by another infected sand-fly. But not all doctors agree on this matter. Since the disease can reoccur in the same way that malaria re-occurs, it may be possible for the parasite to live elsewhere in the body, perhaps in other bodily fluids – saliva, sores or seminal. Hopefully, current research will soon come up with definite answers.

7 Can humans get Leishmaniasis?

Yes, but man is an exceptional host and is bitten in Greece by a different sand-fly carrying the *Leishmania donovani* parasite. It is believed that humans cannot get the disease from an infected sand-fly carrying the *Leishmania infantum* parasite that bites dogs. The mean annual rate for the past seven years of infected humans to infected dogs in Greece is 25 humans for every 100,000 dogs. Humans most vulnerable to the disease are those with an immature or weakened immune system.

8 What is the treatment for humans?

Impavido® (Miltefosine), the first oral drug against visceral Leishmaniasis (the most common form in humans) is now being successfully used on people to eliminate the parasite.

9 What can you do to prevent your dog from getting the disease?

- * Use Scalibor collars with deltamethrin from May to Nov. Other flea/tick collars do not give any protection.
- * Use insect repellent (Autan, Antiphlebotome, Citronella) on dog's skin after sunset, especially on the head and around area where dog lives, from May to Nov.
- * Use anti-repellent soap to bath dog from May to Nov.
- * Consider allopurinol pills from Aug to Nov as preventive therapy, especially if you live in a high-risk area.
- * If your dog sleeps outside, provide protected and clean sleeping quarters off the ground.
- * Don't take or let your dog outside after dusk.
- * Have your dog's blood tested every 6 months.
- * Keep informed about the disease to give your animals the best protection you can.

This brochure was written for SPAZ by Elizabeth Koubena; portions may be printed or freely quoted as long as SPAZ is mentioned as the source.