



Fact sheet

Canine Vector-Borne Diseases (CVBD)

Leishmaniosis

Leishmanioses are a group of zoonotic diseases transmitted to humans and animals by the bite of *phlebotomine* sand flies.

Pathogen

- Protozoa of the genus *Leishmania*
- Most important in dogs in Latin America and Mediterranean area is *L. infantum*

Vector

- Sand flies: Diptera family Psychodidae with *Phlebotomus* in Europe and *Lutzomyia* in South America
- Nocturnal blood feeders

Distribution

- Leishmaniosis occurs in more than 100 countries, from warm temperate through subtropical to tropical climates
- Extremely common in the Mediterranean area and South America; also found in Africa, Asia, Middle America

Clinical Signs and Diagnosis

- Chronic disease with an incubation period of months to years
- Once the disease becomes patent, progression is usually rapid and death occurs within a few weeks to months.
- Wide variety of clinical presentations. Clinically affected dogs usually show one or more of nine main clinical features: 1. skin lesions (alopecia,



scaling and ulceration), 2. loss of weight or poor appetite, 3. local or generalised lymphadenopathy, 4. ocular lesions, 5. epistaxis, 6. lameness, 7. anaemia, 8. renal failure or 9. diarrhoea

- Fine needle biopsies from bone marrow or lymph nodes for microscopic determination of the parasite
- Blood sample for PCR or anti-Leishmania antibody assay

Treatment

- Monotherapy or combination of allopurinol and meglumine antimonite
- Treatment is rarely, if ever, curative and dogs remain infected for life

Prevention

- No vaccination available
- Prevention by decreasing exposure to sand flies, e.g., keeping dogs indoors at night
- Use of parasiticide with repellent activity, such as (K9)Advantix[®] spot-on (combination of imidacloprid and permethrin)

Zoonotic potential

- *L. infantum* in Europe and *L. chagasi* in South America, for which dogs are the main reservoir, can cause visceral leishmaniosis in humans
- The visceral form is the most severe kind of leishmanioses in humans with a mortality rate of 100%, if untreated
- Estimated 500,000 new human cases per year worldwide, particularly in children or immunosuppressed adults
- Due to its zoonotic potential, the veterinarian division of WHO is funding leishmaniosis monitoring within the Mediterranean Zoonoses Control Programme (MZCP)

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