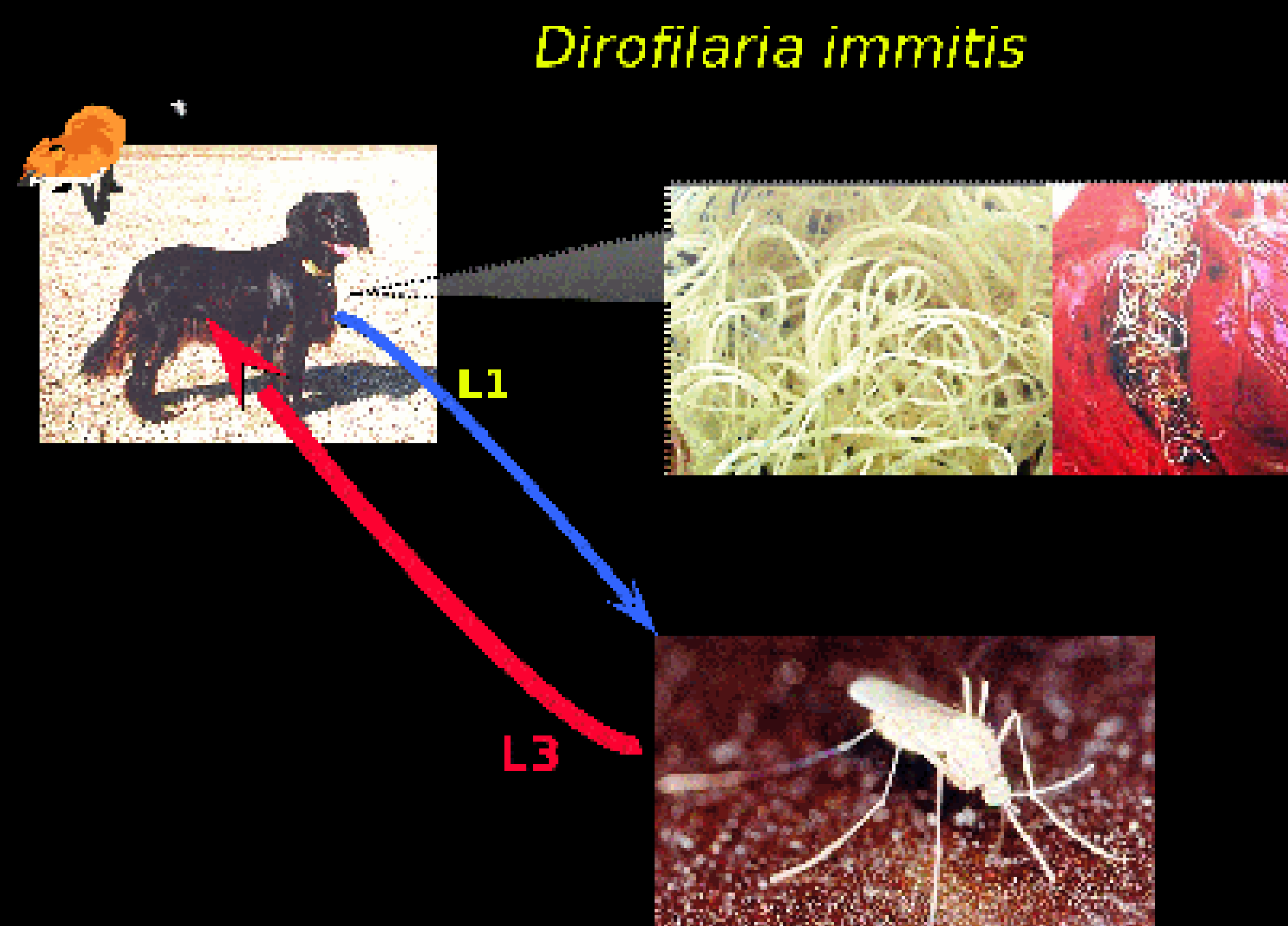


Canine dirofilariosis (heartworm infection) in the Greece

By S. Th. Haralabidis, DVM, former Prof. of Parasitology and Parasitic Diseases, Vet.Med.Faculty, Aristotle University of Thessaloniki, Greece (harala@vet.auth.gr)



Canine dirofilariosis is caused by the development of males (12-23 cm) and females (25-30 cm) of the nematode parasite *Dirofilaria immitis* (Filarioidea) in the right heart and the pulmonary arteries. Human can act as aberrant host.

The parasites survive for up to seven years and produce microfilariae (L1), which are released into the circulation. It is generally found that in Greece 0.7% of the dogs (Attika) or 4-10% of the dogs (Macedonia and Thrace) are microfilaria positive.

The L1s are ingested by uninfected mosquitos during a blood meal from an infected dog and are differentiated into L3s in two weeks. Infection in healthy dogs occurs when L3s enter through the inflicted wound of the infected mosquitos during the next blood meal. 120-270 days after the infection the L3s reach maturity in the right heart and the pulmonary arteries.

Pulmonary hypertension, chronic coughing, dyspnea, hemoptysis, intima e.t.c. can be present or caval syndrome can occur.

Clinical signs, immunological and parasitological tests are co-evaluated in the diagnosis of dirofilariosis (the earliest that microfilariae can be detected in the blood is 6¹/₂ months after infection).

Drug treatment involves a three pronged approach, in order to kill adults [adulticides: melarsomine (2.5 mg/kg/day for two days, i.m.) or thiacetarsamide (2.2 mg/kg/day for two days, i.v.)], microfilariae [microfilaricides: milbemycin oxime (0.5-1 mg/Kg per os) or ivermectin (0.05-0.2 mg/Kg per os or s.c., no during pregnancy and in Collie, Siberian Husky, Shetland, Old English, Australian e.t.c.)] and prevent the thromboembolic complications [5 mg acetylsalicylic acid/kg/day, for some weeks before and after treatment with the adulticides and the microfilaricides].

To prevent adult parasite maturation, dogs should be given ivermectin or milbemycin oxime once monthly during the season of the mosquitos.

Top