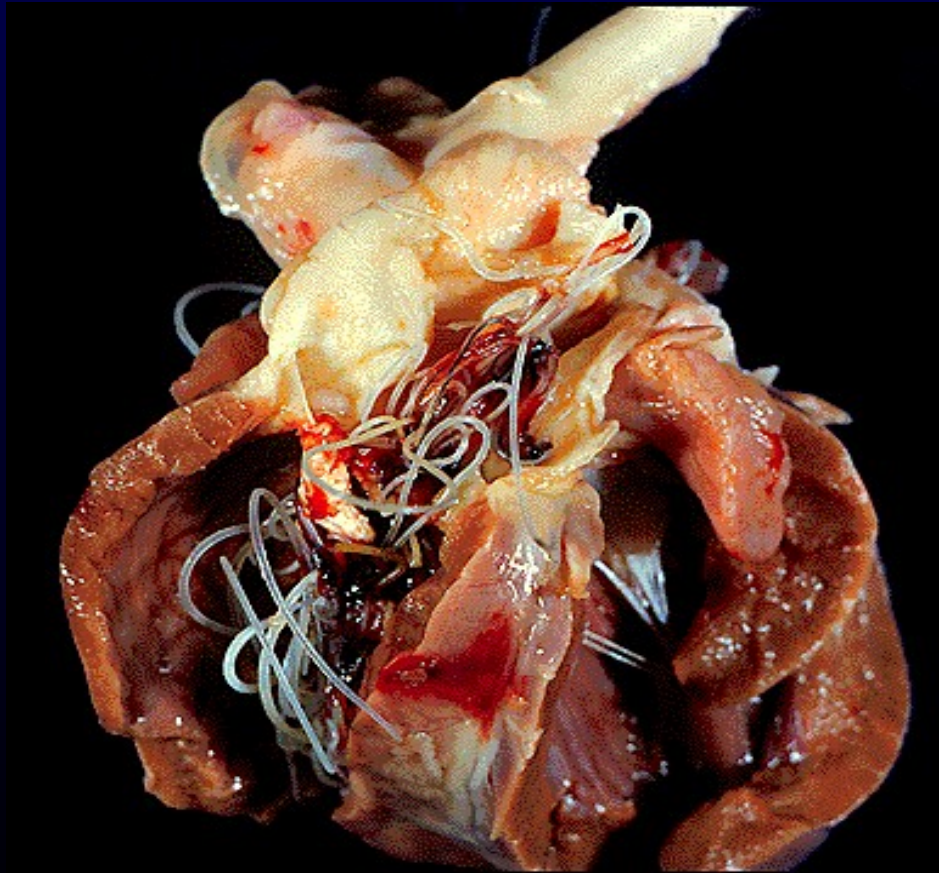


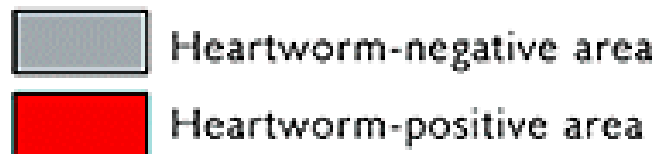
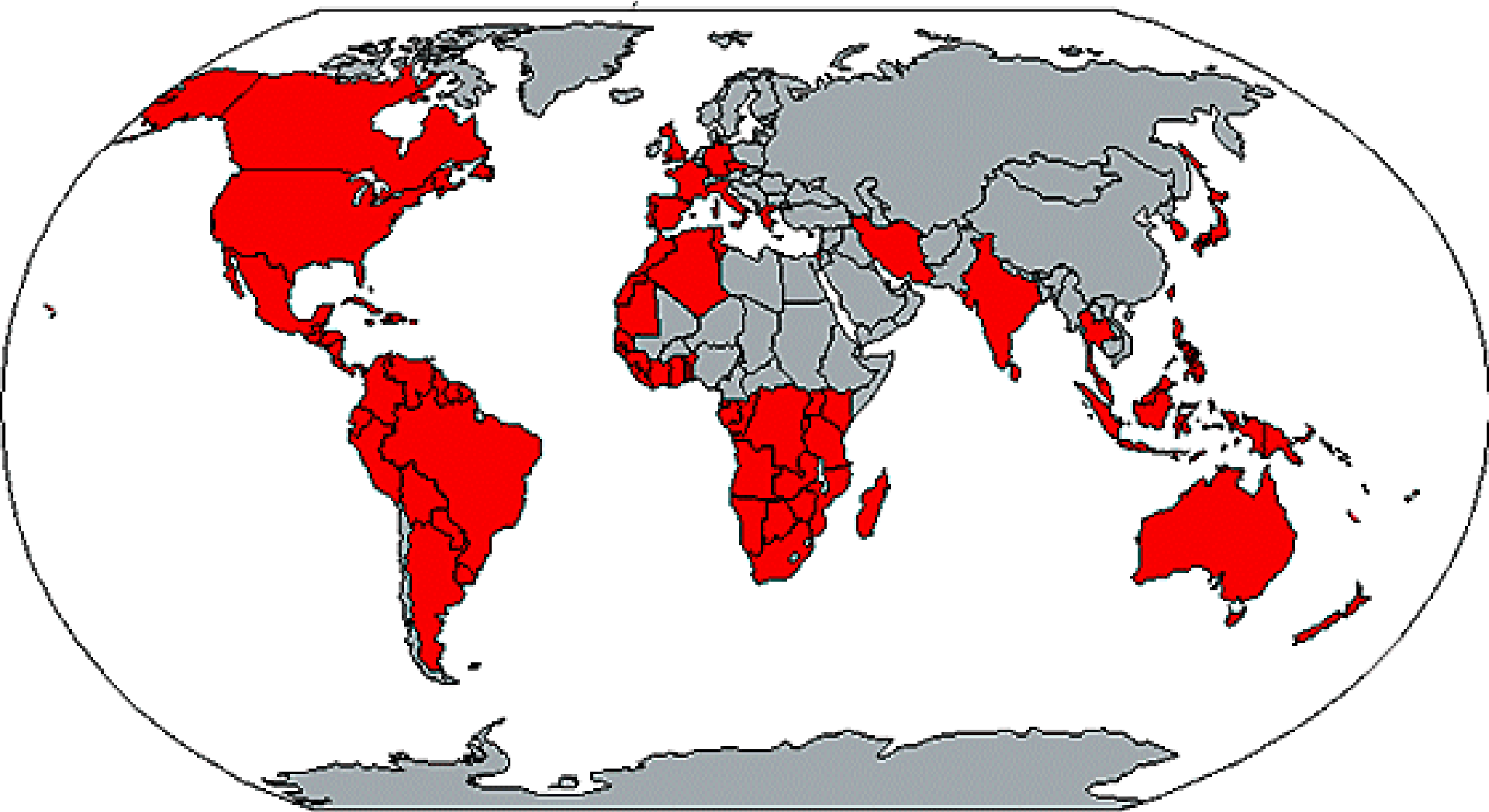
Efstathios Iosifidis  
iosifidis@opensuse.org

# Heartworm disease

*Dirofilaria immitis*

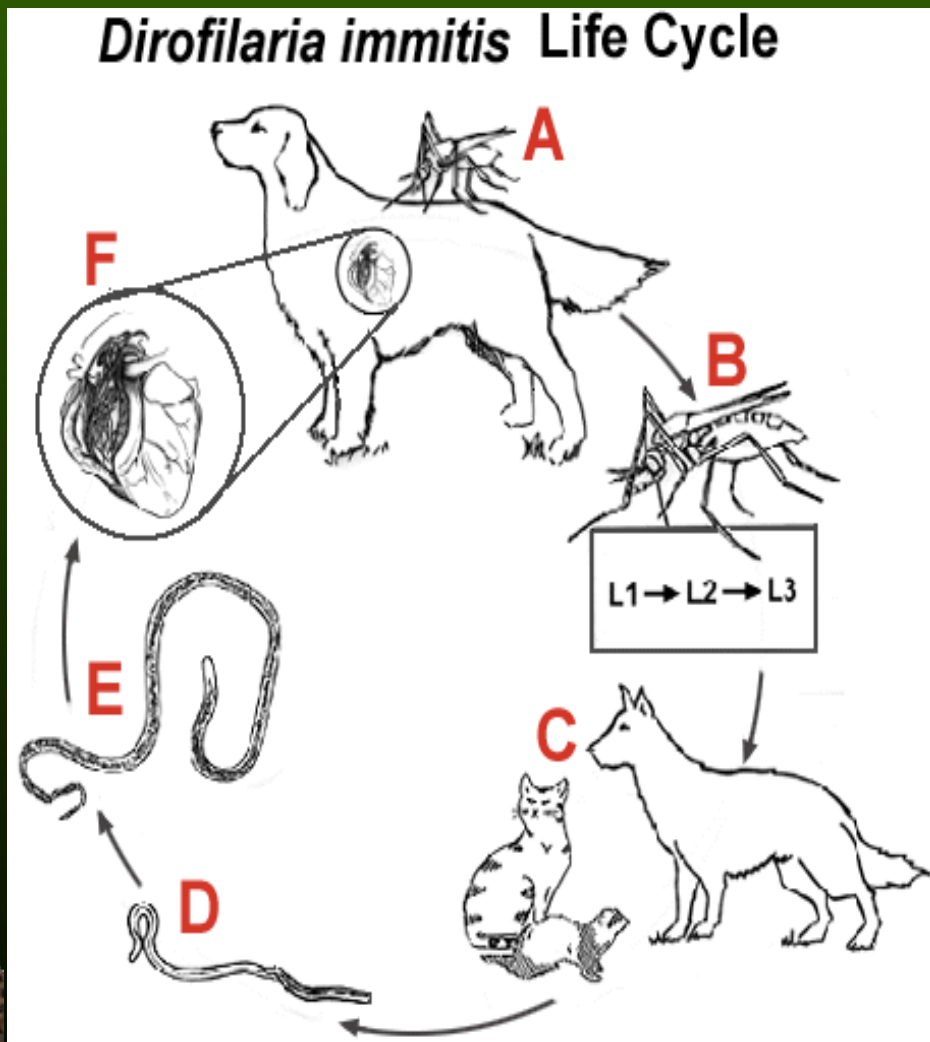
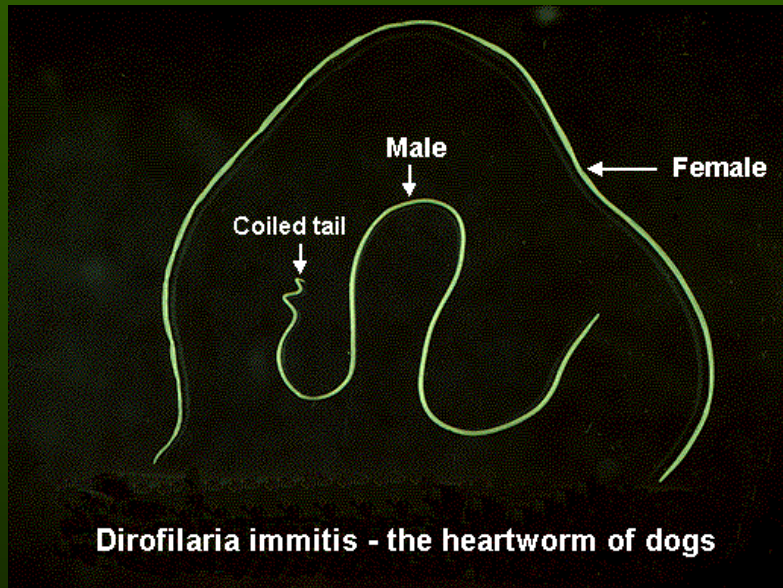


# Distribution of Canine Heartworm Disease



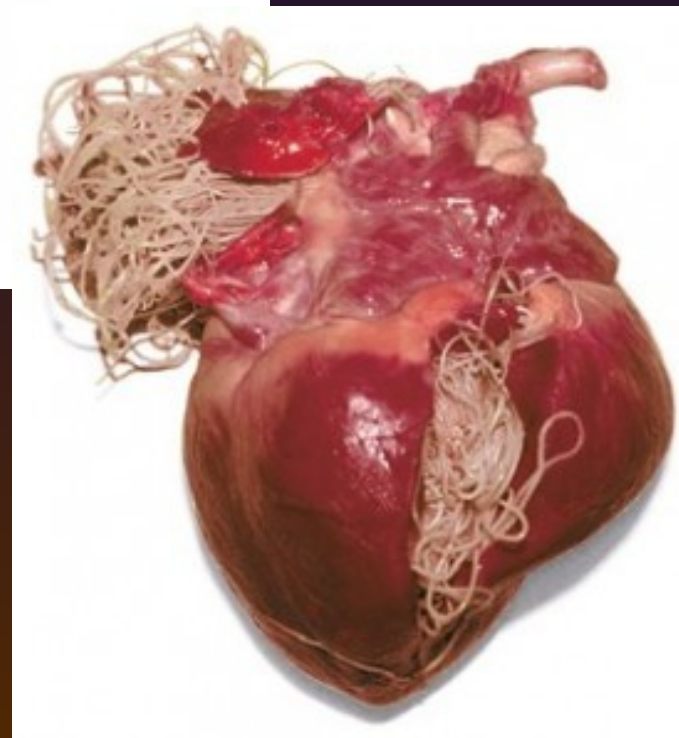
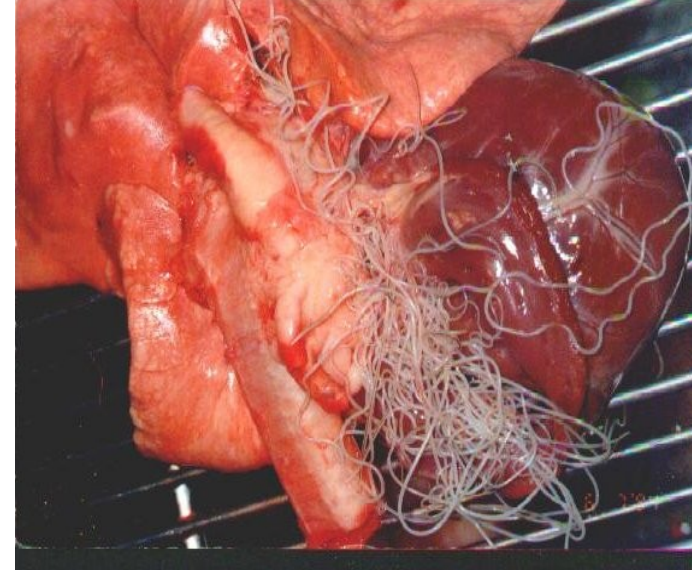
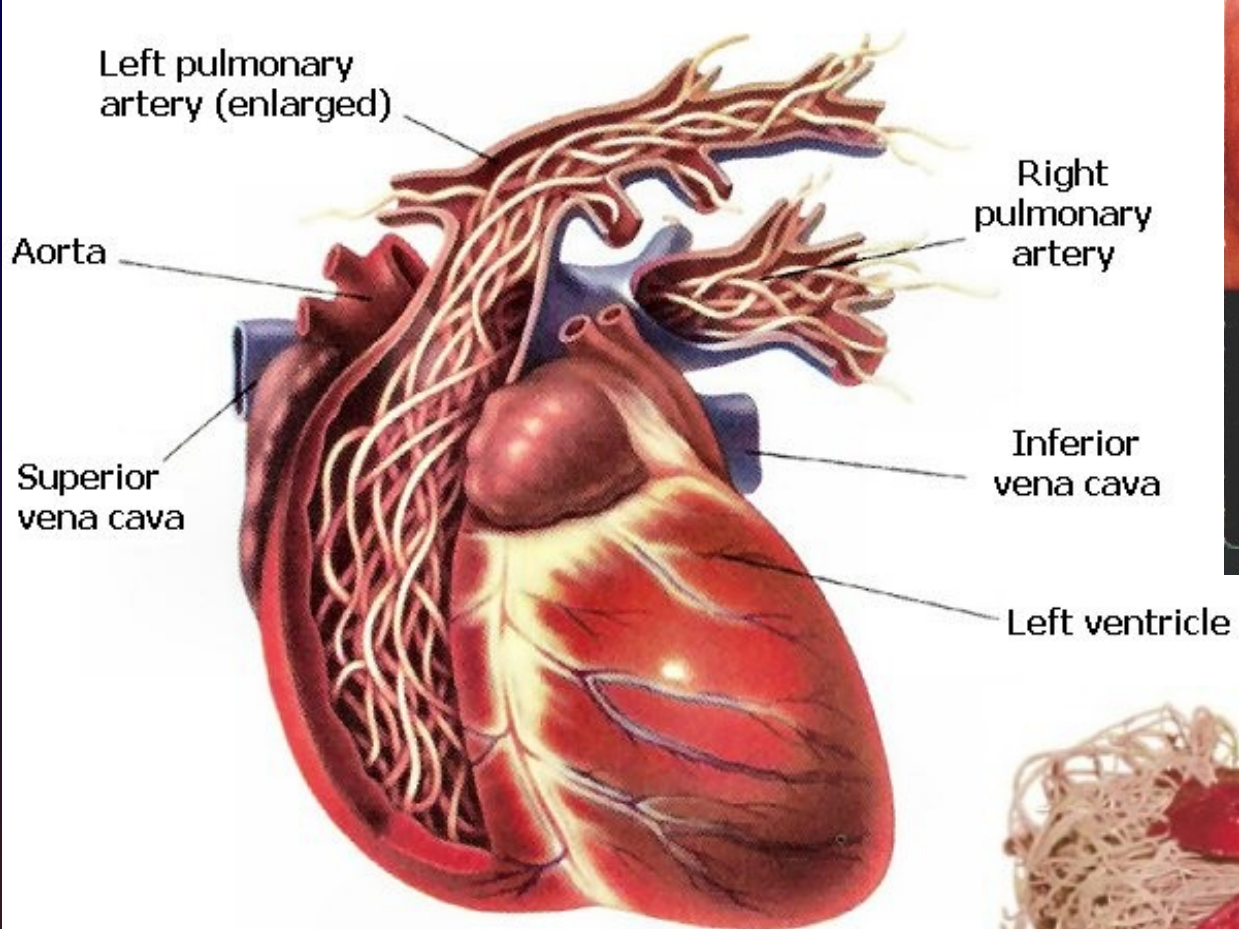


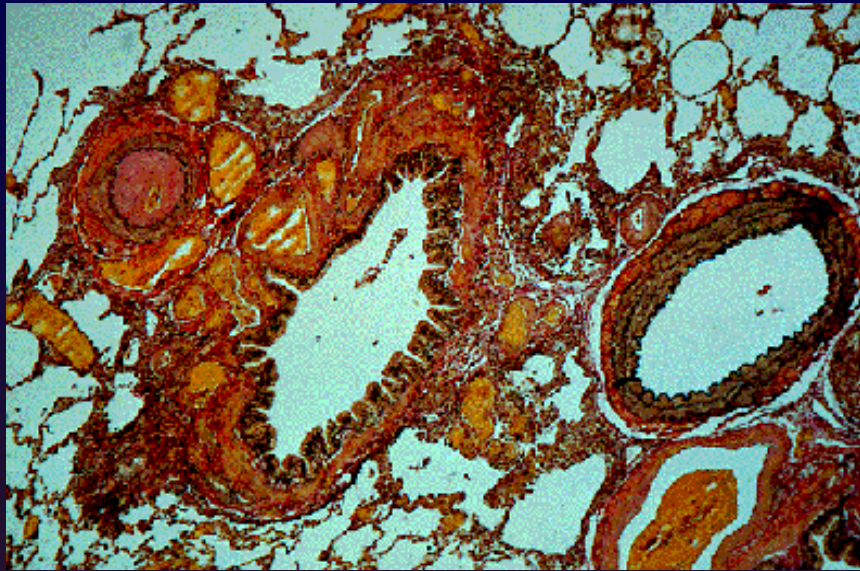
Prepatent: ~ 6.5months







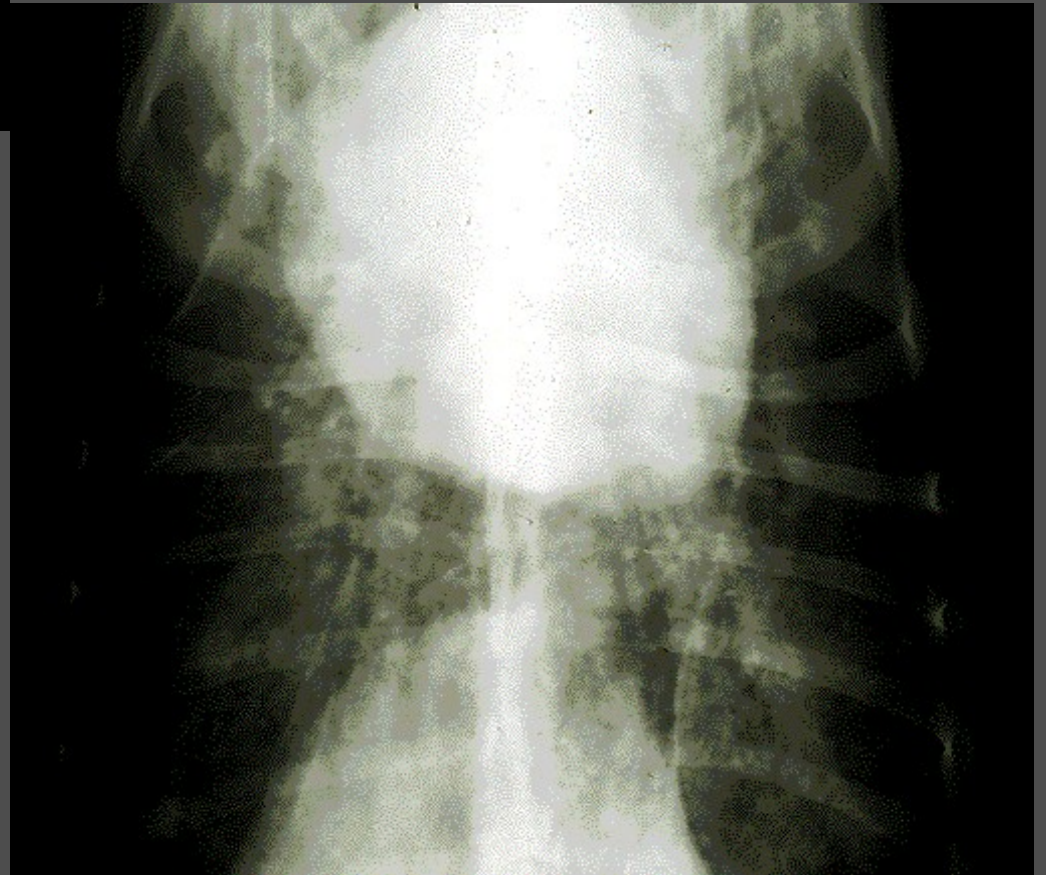
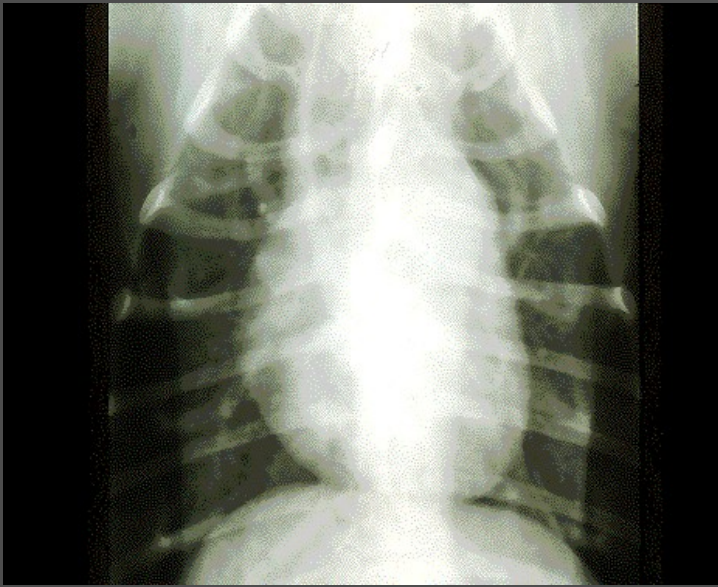


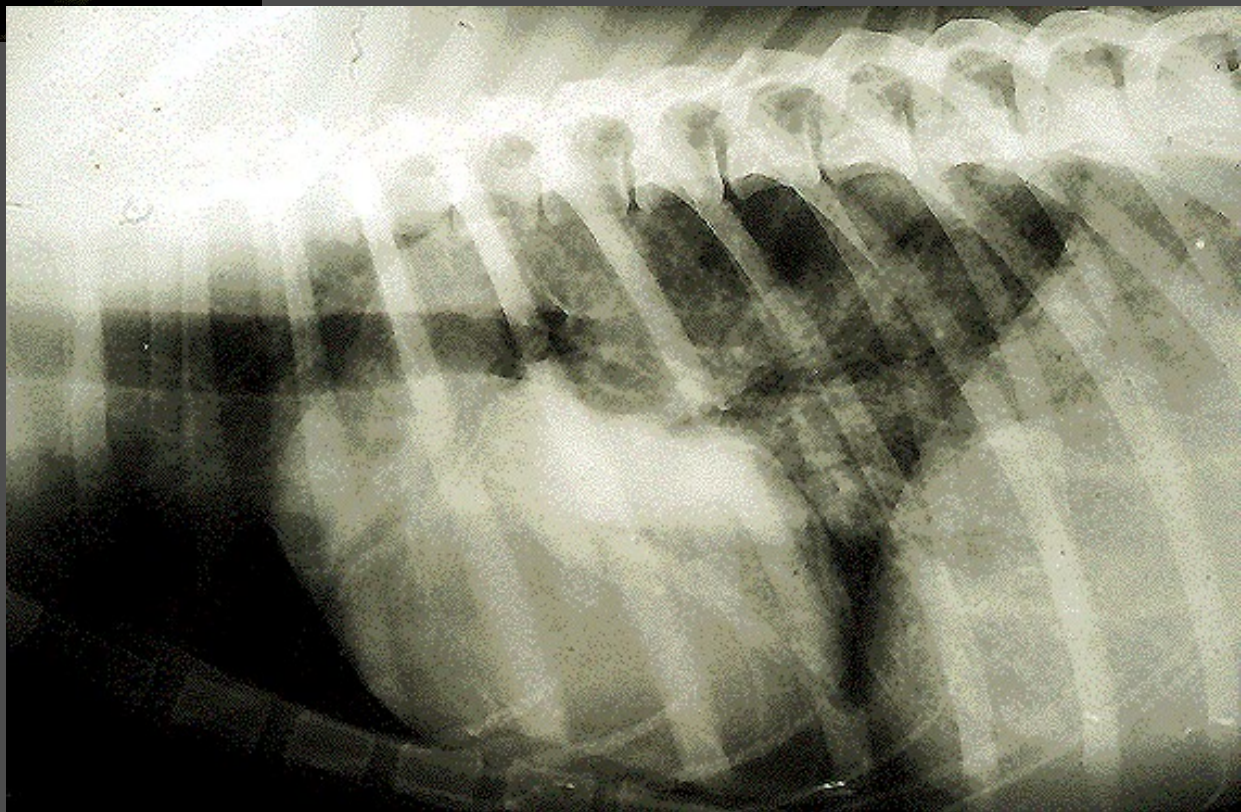
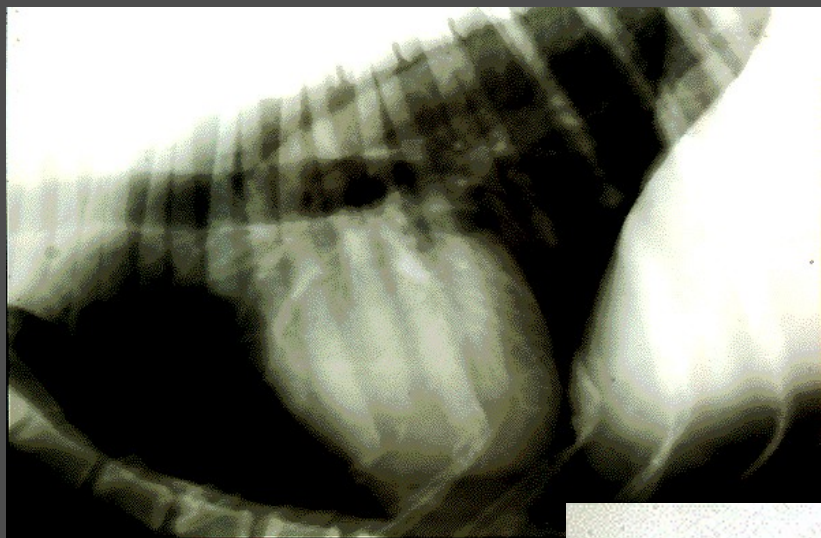


# Symptoms

- 1st stage: none or smooth symptoms
- 2nd stage: weight loss, coughing, difficulty breathing, Sluggishness
- 3rd stage: same as stage 2, liquid in their belly









# Diagnosis

1. Find microfilariae:  
direct blood smear  
modified Knott test  
millipore filtration

2. Antigen testing

3. DNA testing

- X-rays

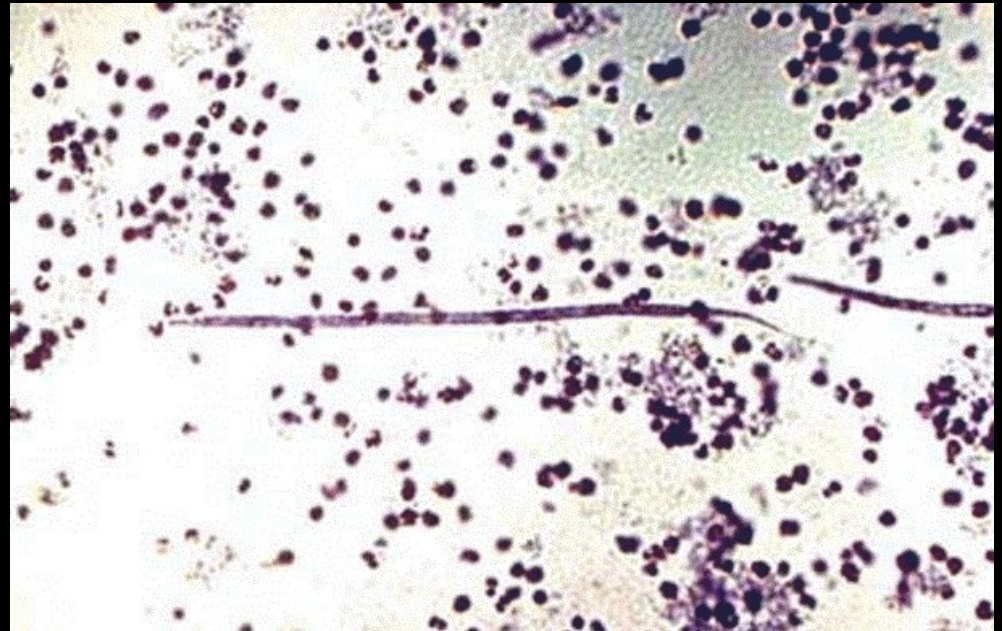
evaluate the amount of lung damage







Microfilariae *D.*  
*immitis* (**modified Knott**  
**test**)



# Treatment

Thiacetarsamide sodium

2,2 mg/kg /12h IV (!) for 2 days

Melarsomine dihydrochloride

2,5 mg/kg/24h IM, for 2 days



## BE CAREFUL

- ◆ NO ACTIVITY FOR THE DOG
- ◆ POSSIBLE COMPLICATIONS

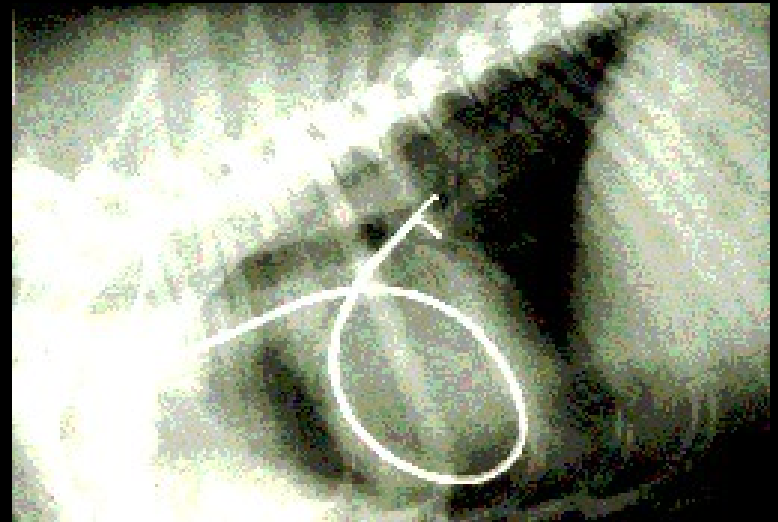
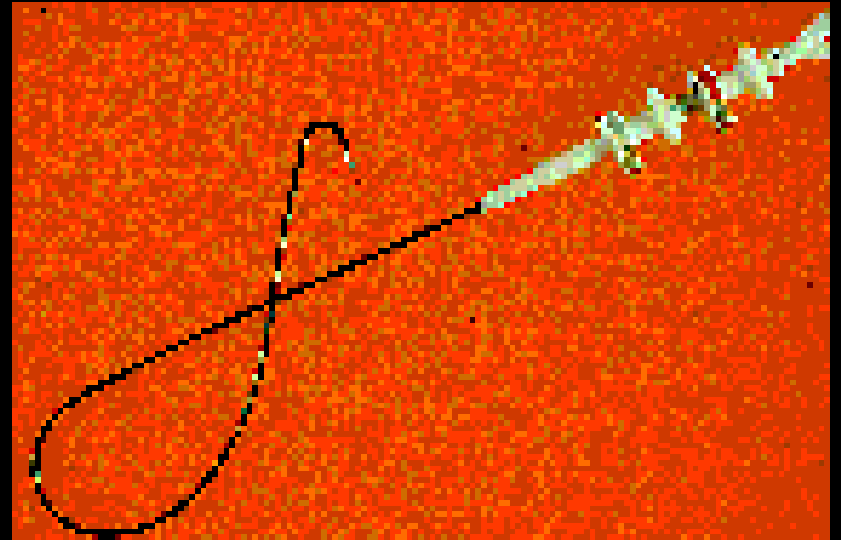
Ivermectin 50 µg/kg SC

Moxidectin 3µg/kg, *per os*

Milbemycin 0,5-2 mg/kg, *per os*

**Check after 1 month**

# Surgical removal of adult parasites





# Prevention

- Ivermectin 6µg/kg
- Milbemycin (Interceptor®) 0,5-1 mg/kg
- Moxidectin (Cydectin®) 3 µg/kg
- Selamectin (Stronghold®) 6 mg/kg

**ONCE PER MONTH**

# Lost worm



# Public Health

- signs of respiratory disease (human is not physical host)
- lung granuloma, forms around the dead worm as it is being killed and absorbed (coin lesion)





# Hypodermic heartworm

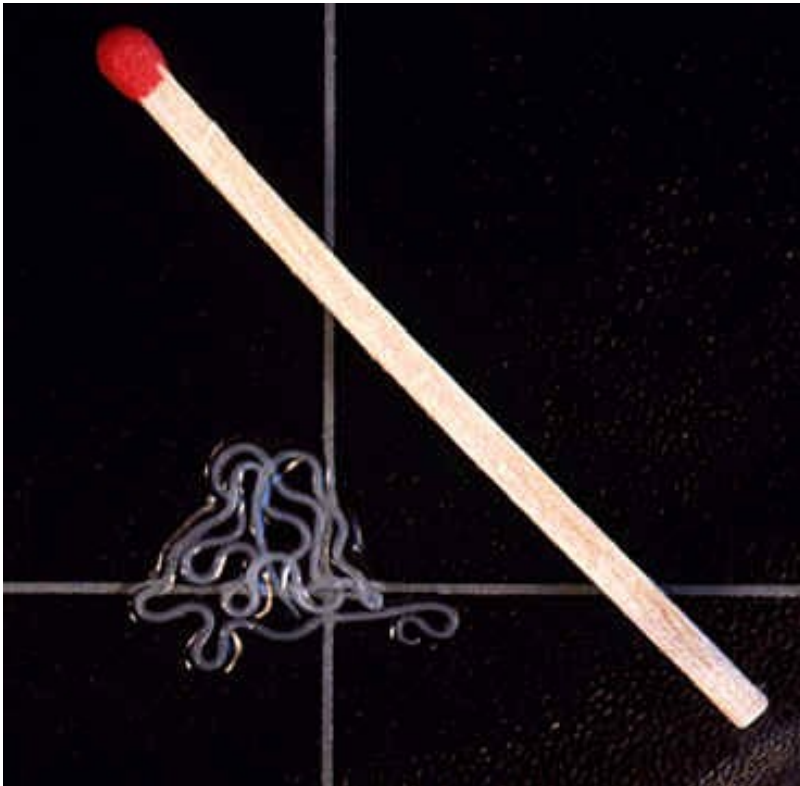
*Dirofilaria repens*

*Dipetalonema reconditum*

Usually without symptoms

Possible skin lesions

# Hypodermic heartworm



*Dirofilaria repens*



# Thank you

