

SPIRUROIDOSIS

ANIMAL GROUP AFFECTED	TRANSMISSION	CLINICAL SIGNS	FATAL DISEASE ?	TREATMENT	PREVENTION & CONTROL
All nonhuman primate genera	Perorally via cockroaches	Itching, urticaria, conjunctivitis, keratitis, ulcer corneae, wasting, anaemia	Yes (sometimes)	Mebendazole, Levamisole, Fenbendazole, Ivermectin-eye-lotion, Albendazole	<i>In houses</i> Cockroach control <i>in zoos</i> cockroach control

Fact sheet compiled by Manfred Brack, formerly German Primate Center, Göttingen / Germany.	Last update 22.11.2008
Susceptible animal groups All nonhuman primate genera.	
Causative organism <i>Gongylonema pulchrum</i> , <i>Oxyspirura conjunctivalis</i> , <i>Protospirura muricola</i> , <i>Trichospirura leptostoma</i> (New World monkeys only!), <i>Pterygodermatites nycticebi</i> , <i>Abbreviata caucasica</i> , <i>Chitwoodspirura wehri</i> (Old World primates).	
Zoonotic potential In <i>Gongylonema pulchrum</i> : yes	
Distribution Naturally occurring in the tropics and subtropics, in captivity World- wide.	
Transmission Through cockroaches or dung beetles as vectors : perorally.	
Incubation period In man : 6 – 8 weeks or longer	
Clinical symptoms Depending on the spiruroid species involved: <i>G.pulchrum</i> : Itching sensation and secondary lesions of the facial skin, hypersalivation, foamy sputum. <i>O. conjunctivalis</i> : conjunctivitis, keratitis, ulcer corneae, <i>P.muricola</i> : death without prior signs in cebus monkeys, <i>T.leptostoma</i> : wasting, crouched position, <i>P.nycticebi</i> : syncope, lethargy, anaemia, death.	
Post mortem findings Depending on the spiruroid species involved and the lodging site. As a rule, the adult helminths induce pressure atrophy of the epithelia adjacent to their lodging site, the migrating larvae may cause inflammatory responses in surrounding tissues. In <i>T.leptostoma</i> chronic fibrous pancreatitis, in <i>P. nycticebi</i> hyperaemia and petechial haemorrhages in the small intestinal mucosa.	
Diagnosis Ovodiagnosis in faecal samples. in <i>O.conjunctivalis</i> emigration of the adult worms from the conjunctiva can be provoked by application of 2% Lidocain eye-lotion. Serology.	
Material required for laboratory analysis Faecal samples, altered tissues.	
Relevant diagnostic laboratories Local parasitological laboratories.	
Treatment Mebendazole (15 – 100 mg/kg) Levamisole (4 mg/kg); Fenbedazole (50 mg/kg); Ivermectin 290 mg/kg. p.o. in <i>O.conjunctivalis</i> : Ivermectin eye-lotion. Albendazole (10 mg / kg for 3 days).	
Prevention and control in zoos Cockroach control programs.	

Suggested disinfectant for housing facilities
Notification
Guarantees required under EU Legislation
Guarantees required by EAZA Zoos
Measures required under the Animal Disease Surveillance Plan
Measures required for introducing animals from non-approved sources
Measures to be taken in case of disease outbreak or positive laboratory findings
Conditions for restoring disease-free status after an outbreak
Experts who may be consulted
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