

# Rare zoonotic diseases caused by nematodes *Gongylonema pulchrum* and *Dirofilaria repens* in clinical practice

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**Introduction.** Some zoonotic nematode species that infect humans represent rare and surprising clinical findings. Man is a non-specific host, but is infected by accidental contact with their invasive forms. Parasites often do not complete their development in a human body, the symptoms are uncharacteristic and the diagnosis - difficult. The zoonotic nematodes *Gongylonema pulchrum* /1,2/ u *Dirofilaria repens* /3,4/ are not unfamiliar to the population of Bulgaria.

**Clinical cases of gongylonematosi.** The patient was a young woman, who was a photo-model. She lived abroad, where she ate salads, sushi and oriental food. When she returned she noticed a swelling on the inside of one cheek. With her tongue she felt the

movement of a filamentous formation attached to the oral mucosa. She caught a moving thin worm (6 cm long) with her fingers. In the laboratory it was determined as *Gongylonema pulchrum* - a nematode in the esophagus of farm animals. Vectors are coprophagous insects (with invasive larvae) - cockroaches, etc. The infection is acquired by contaminated food and possibly water. The anterior end of the parasite is characteristic with raised cuticular bosses or plaques arranged in longitudinal rows /Fig.1/.



**Fig.1. *Gongylonema pulchrum*** (anterior end)



**Fig.2. *Dirofilaria repens*** (subcutaneous location)

**Clinical cases of dirofilariosis.** A total of 24 patients (age 15-65 years) infected by *Dirofilaria repens* were registered for a period of three decades. They sought medical help for a single painless subcutaneous node, with soft-elastic consistency, grown in a few months to 1-2 cm. The localization was in different parts of the body /face, arms, legs, ect/. In 1/3 of the cases it was periorbital with eyelid edema, conjunctivitis, chemosis. The initial diagnosis was inaccurate, except in subconjunctival localization. Surgically removed helminth with a size of 10-16 cm was a surprising finding /Fig.2/. A large number of dogs, which are the main host, are infected /10%/. Vectors are different mosquito species. All favour the occurrence of cases of dirofilariasis in humans.