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Ophthalmic infection with *Dirofilaria repens* in Bulgaria

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Introduction: Dirofilariasis is a parasitic disease of domestic and wild animals, that rarely infects humans. The genus Dirofilaria belongs to the family Onchocercidae and subfamily Dirofilariinae of the order Spirurida. It infects different mammals such as dogs, cats, foxes, etc. The parasite replicates in the animal's body and enters circulation in the form of microfilariae. Mircrofilariae are transmitted to humans through biological vectors such as certain species of mosquitoes. In fact *Dirofilaria sp.* rarely infects humans. The parasite is found in subcutaneous tissue and mucous membranes, rarely affects visceral organs – heart, lungs, eyes, central nervous system. Ophthalmic infection with *D. repens* is registered all over the world. Ocular involvement may be periorbital, subconjunctival or intraocular.

Materials and Methods: We describe a case of subconjunctival dirofilariasis in 64-year-old female patient, hospitalized in the Clinic of Ophthalmology. The 64-year-old patient presented with redness, irritation, intermittent local pain of the left eye. Her complaints dated from 3 months. Results: Ophthalmic examination revealed a thin white live worm under the chemotic and injected bulbar conjunctiva . The parasite was removed surgically under local anaesthesia. It was long 130 mm and wide 0.61 mm. The worm was identified as *Dirofilaria repens* in The Center of Parasitology, Sofia, Bulgaria.

Discussion: Cases of *D. repens* have been reported in Mediterranean Basin (Greece, Italy, Spain) and Turkey. The first case was published in 1867 by Angelo Pace in Palermo. Most cases present with pain, redness of the eye and swelling. Symptoms appear when worm enters the subconjunctiva – usually weeks after infection. Diagnosis should include: blood smear elavuation for microfilaria, serology, PCR-teston mosquitos to detect microfilarial DNA. In the literature in the biggest part of the described cases , the parasites length is 40-140 mm. In our case the parasite was 130 mm in length. Laboratory tests showed negative blood eosinophilia.

Conculsion: Ocular dirofilariasis, caused by *Dirofilaria repens* is very rare in Bulgaria. Most of the cases were registered in Asia and Africa, rarely in Central and South Europe. There are about 780 cases reported in the literature to date.

Biography

Teodor Angelov is 4th year student in Medical University of Sofia. Since his preclinical years in the University, he took part in many student congress as an active participant. Teodor has got many publications in bulgarian science journals in bulgarian and english. His interests are concentrated in neurology and neuroophthalmology, cognition sciences and degenerational diseases of the brain, morphology of the human. Teodor finds the participation in the Pharmacology congress for a big experience in his science bio and wants to create new contacts with students and professors in the Pharmacology area

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