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Sir,
**Intravitreal aflibercept for choroidal neovascularisation
in angioid streaks**

We thank Diago¹ for the interest shown in our recent article. We reported for the first time the use of intravitreal aflibercept as primary treatment for choroidal neovascularisation (CNV) in angioid streaks (AS) using a *pro re nata* regimen.² This approach, in which treatment is withheld unless there is CNV activity, has been the most widely adopted in this setting.^{3,4}

Treat and extend (T&E) is a treatment modality that aims to treat the CNV proactively, in order to find an optimal treatment interval, and has been more commonly used in the context of neovascular age-related macular degeneration (nAMD). While we find the T&E modality to be an interesting approach for AS-associated CNV, we agree with previous reports that the CNV in this context is closer to myopia-related CNV than nAMD-related CNV, and therefore may require fewer injections.⁴ Additionally, patients can be activity-free for several years, or develop new CNV lesions in a different location altogether, making it difficult to identify a specific pattern of recurrence.⁴ This could lead to overtreatment with subsequent increase of associated risks such as chorioretinal atrophy.⁵

Even though larger prospective trials are needed to elucidate on the best treatment protocol, they are difficult to arrange due to the rarity of the condition.

Conflict of interest

Dr Vaz-Pereira has received consultant fees from Bayer and Novartis and has received travel grants from Bayer, Novartis, Alcon, Allergan and Alimera Sciences. Dr Collaço has received travel grants from Bayer. Dr De Salvo has received travel grants from Bayer and Heidelberg Engineering. Dr van Zeller declares no conflict of interest.

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Sir,
A rapidly emerging ocular zoonosis; *Dirofilaria repens*

Dirofilariasis—commonly caused by *Dirofilaria repens* and *D. immitis* and transmitted via mosquito bites—is a roundworm zoonosis that is emerging as a public health concern in Eastern and Southern Europe, Asia Minor, Central Asia, and Sri Lanka, possibly due to climatic changes.^{1,2} Until 1999, only a single case of dirofilariasis was reported from Turkey; however, the number of reported cases in Turkey increased to 22 between 1999 and 2011. Here we report three new cases of *D. repens* detected in Marmara Region of Turkey, which were witnessed in June 2013 with accompanying history of mosquito bites and lack of abroad travelling.

Case report

The first case—56-year-old female patient—suffered presumed viral conjunctivitis on both eyes since 3 weeks, for which she received symptomatic and topical steroid treatment. The infectious condition on her left eye got worse during last few days before her recent evaluation. Slit-lamp biomicroscopic examination revealed a new convoluted, translucent, 6 × 8 mm-sized, immobile, and subconjunctival larva (Figure 1). Second 31-year-old female patient presented with the complaint of stinging in her left eye; a superotemporal, 3 × 2-mm-sized, convoluted, translucent, and immobile subconjunctival larva was detected with accompanying episcleritis. The third 63-year-old male patient had admitted for routine

Figure 1 Microfilaria in the nasal aspect of the left subconjunctival area.

Figure 2 An incidental microfilaria in the inferior eyelid extending towards to the skin surface.

glaucoma examination and clinical examination revealed a upturned, rigid, 3-mm-length, off white, and immobile larva in the inferior eyelid extending towards to the skin surface (Figure 2). All larva did not move away from the slit-lamp beam. Corneal and retinal examinations of the first two cases were normal, and visual acuities were 1.0 in both eyes. The third patient's cornea appeared normal but he had bilateral glaucomatous optic disc cupping and visual acuities of 0.6 and 0.8 of right and left eyes, respectively. A consent form was signed by each patient in accordance with the Declaration of Helsinki before intervention.

Routine laboratory tests are not useful in the diagnosis of dirofilariasis. Imaging methods have limited benefit and macroscopic findings may also be inadequate in the diagnosis.³ In humans, dirofilaria usually fail to complete their maturation; therefore, pathologic examination only shows degenerated immature worms and subsequent granulomatous reaction.⁴ Hence, definite diagnosis and

Figure 3 Imaging of 209 bp *Dirofilaria repens* PCR product in 1.5% agarose gel. 1: sample (case 2), amount of gDNA 1 µl, 2: sample 2 (case 3), amount of gDNA 1 µl, 3: negative control (case 1), 4: 100 bp ladder.

subtyping require taxonomic definitions such as PCR, DNA sequencing, or 12S mitochondrial markers.⁵

Each patient underwent surgical removal and topical antibiotic and anti-inflammatory therapy postoperatively (combination of prednisolone acetate 1% and ofloxacin 0.3%). Specimens were characterized via PCR-based methods, yet the first patient's specimens were insufficient for genetic definition (Figure 3). Because of the shared clinical features among all cases and their clustered onset within 1 month, we preferred to consider this case also as a dirofilariasis infestation. Furthermore, the patients were also evaluated systemically with detailed physical examination, X-rays, and laboratory testing, which revealed lack of systemic disease. Still, a regular examination was suggested to them. At their next follow-up, the first patient suffered a recurrence on the initial site of the infestation. It was assumed that this was due to insufficient removal of the larva. Therefore, a second surgery was recommended, which was refused by the patient. During following visits, the persistence of the larva on the same location with no size changes was seen.

Comment

Dirofilariasis is an emerging zoonosis that occasionally affects eyes. Ophthalmologists working in endemic areas of Eurasia should consider parasitic infestation by *Dirofilaria sp.* if they encounter unexplained inflammation on ocular surfaces. Extraction of a subconjunctival larva is usually curative and provides a specimen that can be sent for histopathological examination and/or molecular confirmation.

Conflict of interest

The authors declare no conflict of interest.

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