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Sir,

Unusual presentation of dirofilariasis as a lacrimal mass

A 66-year-old Hong Kong Chinese female patient presented with a drooping of her right upper eyelid for 2 weeks. She was born in China and has never travelled abroad. Examination showed a partial ptosis of her right upper lid. It was caused by a palpable, firm, nontender mass with a size of 1 cm in diameter located at the supero-temporal region of her right orbit. Ophthalmic examination was otherwise normal. Computed tomography scans of the orbit showed an enlarged lacrimal gland of the right eye associated with a nonenhancing hypodense lesion (Figure 1). No adjacent bony erosion was seen. Serological examinations including eosinophil count were normal. Chest X-ray was unremarkable.
An excisional biopsy of the lacrimal gland was performed through lateral orbitotomy. The lacrimal gland was found to be well encapsulated and there was no adhesion to the surrounding structures.

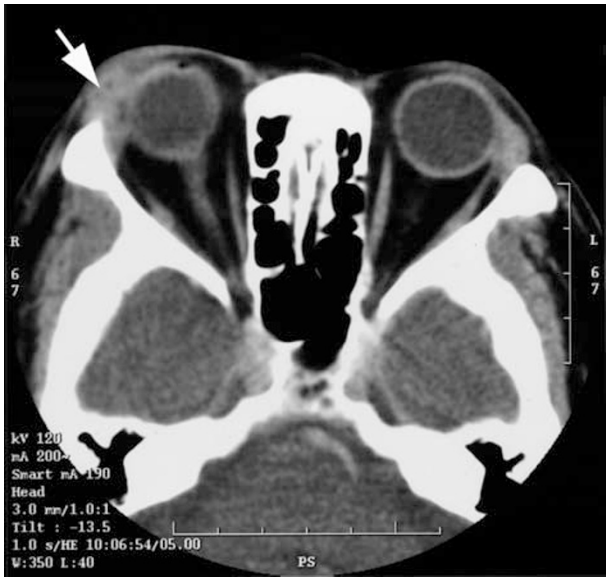

Figure 1 Computed tomographic scan showing an enlarged right lacrimal gland associated with a noncontrast-enhancing hypodense lesion.

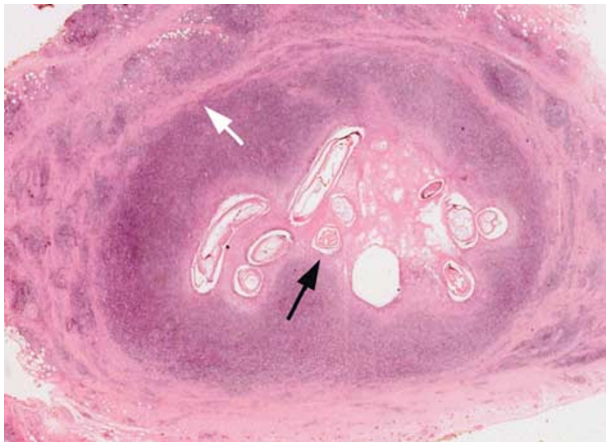

Figure 2 Haematoxylin and eosin stain. Solid arrow: multiple transverse sections of a single female *Dirofilaria* in the lacrimal gland. Empty arrow: lacrimal gland capsule.

Histopathology demonstrated a parasite surrounded by chronic inflammatory cells and significant eosinophils. The presence of thick cuticle, numerous external ridges, two internal longitudinal ridges with lateral chords, heavy musculature and double uterine tubes suggested that the parasite was a female *Dirofilaria* (Figure 2). The degeneration of the specimen did not allow further differentiation into subspecies. After the surgery, the eyelid contour returned to normal and there was no recurrence at the last follow-up visit of 1 year.

Dirofilariasis is a parasitic infection of domestic and wild animals, but it occasionally affects human as zoonotic disease. *D. repens* is the most frequently

reported subspecies outside United States.[1] Mosquitoes are the biological vectors in transmitting the parasite from animals to human. Sometimes they can penetrate the tissue and spread systemically into internal organs.[2] Pampiglione *et al*[3] reported a case series of dirofilarial infections in which 30% had ocular involvement. Ocular infection can be subconjunctival, periorbital, orbital, or intraocular. Orbital infections can result in proptosis, ptosis, or diplopia.[4]

Systemic features such as fever, lymphadenopathy, and reactive arthritis are occasionally seen. Only 25% of subcutaneous cases has peripheral eosinophilia.[4] The diagnosis is made on the basis of histological and morphological identification. Serology and molecular biology techniques may provide supportive information, but the significance of them being the definitive diagnostic tool has not yet been established.[3,5]

In our case, the acquisition of the parasite may have occurred in Hong Kong or in China. Neither the time of transmission nor the route of entry into the lacrimal gland can be determined. Direct inoculation into lacrimal gland is probably not possible. One possibility is that, following an innocuous mosquito bite in the periorbital region, the microfilaria developed in the subcutaneous tissue and finally burrowed into the lacrimal gland. Surgical excision is the recommended treatment for dirofilariasis and this can also provide histological diagnosis. Unlike other filarial infections such as onchocerciasis and loiasis, microfilaraemia is unusual and antihelminthic agents are generally not indicated.

To the best of our knowledge, this is the only report in the English literature that dirofilariasis presented as a lacrimal mass. The initial clinical and radiological findings were all suggestive of a benign tumour. The deceptive feature led to a diagnostic challenge. One should consider this as an unusual differential diagnosis especially for those who have travelled in the past to endemic areas.

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Sir,

Giant retinal pigment epithelium rip secondary to subretinal proliferative vitreoretinopathy

Retinal pigment epithelial (RPE) rips occur relatively uncommonly and are usually associated with serous detachments of the pigment epithelium, secondary to choroidal neovascularization. These typically occur at the macular and cause rapid visual loss. Once the pigment epithelial tear occurs, the RPE retracts from the outer portion of Bruch's membrane and scrolls up. Fluorescein angiography typically demonstrates a well-demarcated hyperfluorescence in the early phase of the angiogram. We describe a case of RPE tear, unusual in terms of its pathogenesis and size.

Case report

An 81-year-old lady was referred with deteriorating vision in her right eye over a period of weeks. Her left eye was blind due to an inoperable retinal detachment 60 years previously. Examination revealed acuity of 6/9 in her right eye and hand movements in her left. On fundoscopy, the left eye had a chronic inferior macular off retinal detachment. Above the superior arcade, there