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Correspondence

Endophthalmitis caused by *Purpureocillium lilacinum*

KEYWORDS
Purpureocillium lilacinum;
Endophthalmitis;
Uveitis;
Misdiagnosis

Dear Editor,

Purpureocillium lilacinum, a saprophytic filamentous fungus, commonly found in soil, decaying vegetation, insects, nematodes and laboratory air, and is a rare cause of devastating oculomycosis,[1] cutaneous infections and other human diseases.[1,2] Endophthalmitis caused by *P. lilacinum* has been reported mainly in developed countries, which is always associated with intraocular lens implantation, ocular surgery and trauma.[2,3] Here we present a Chinese woman who has been misdiagnosed as uveitis and received corticosteroid therapy for two years, was finally proven as *P. lilacinum* endophthalmitis.

A 54-year-old Chinese woman was referred to our hospital for evaluation, with acute fulminant decreasing, pain, tearing and photophobia of her left eye. She had no significant ocular history or recognized trauma, although she complained foreign body sensation on her first clinic visit in a local hospital in Feb 2010. In the following two years, she had paid twelve visits involving five different hospitals for her eye problem. The diagnosis was either uveitis or iritis and she had been treated with antibiotics, local or systemic glucocorticoids. However, her vision reduction was continuing. Slit lamp examination showed keratic precipitates, severe anterior chamber inflammation with hypopyon formation and an intumescent lens. The fundus was not visible due to the dense vitreous opacity. Ultrasonography showed diffuse medium density in the vitreous space with dots of medium echo, partial strip-shaped high echo attached to the retina with fluid and undulating after movement, indicating vitreous opacity with partial posterior vitreous detachment. The patient's intraocular infection was successfully eliminated after two vitrectomies without any further antifungal treatment with a final vision of light perception. Six days postoperatively, aqueous humor showed growth of a filamentous fungus, which was finally identified as *P. lilacinum* by sequencing of the internal transcribed spacer (ITS) of rRNA (accession no. KU196096). There was no clinical recrudescence after a 3-year follow-up visit.

Our patient has not undergone any ocular surgery, lens implantation or identifiable injury, but had a foreign body sensation on her first clinic visit. She recalled that she might have hurt her eyes when she took care of a baby of her son. So we hypothesized that the patient have had a minor injury inoculating the lens, the slowly progressive course and chronic inflammation made it confusing to recognize the infection. During her twelve visits to ophthalmologists in the local hospitals, she had never been suspected as infection, or prescribed a microbiological examination or treated with antifungal agents. A delay in eradication of the organism, combined with topical corticosteroids therapy may finally resulted in corneal invasion and progression. Fungal endophthalmitis should always be considered carefully in the differential diagnosis of uveitis, which need systemic corticosteroid and immunosuppressive agents to prevent the aggravation of inflammation.[4,5]

In conclusion, *P. lilacinum* endophthalmitis is an ophthalmological emergency, early differential diagnosis with uveitis by vitreous aspiration or diagnostic vitrectomy followed by a culture and histological examination is recommended.

Conflicts of interest

All contributing authors declare no conflicts of interest.

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