Chronic Anterior Uveitis with Ocular Hypertension

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ภาวะ chronic anterior uveitis เป็นภาวะที่จักษุแพทย์พบอยู่เป็นประจำ การให้การวินิจฉัยที่ถูกต้อง และทราบสาเหตุของโรคจะช่วยให้จักษุแพทย์สามารถให้การรักษาได้อย่างมีประสิทธิภาพยิ่งขึ้น

Introduction

Chronic hypertensive anterior uveitis is one of the doubtful diseases. The differential diagnosis includes Fuchs' heterochromic iridocyclitis (FHI)[1] , Posner-Schlossman syndrome (PSS)[2], and herpesviral-associated iridocyclitis. Lawrence firstly described a condition of iris heterochromia and cataract in 1843. Sixty three years later, Ernst Fuchs expanded the work and made the disease be recognized.

The typical patient is a young adult with unilateral subtle anterior uveitis and generalized or patchy iris atrophy. Scattered small stellate keratic precipitates (KPs) can be observed over the whole corneal endothelium. The patient's visual disturbance is usually due to cataract. Increased intraocular pressure in FHI is secondarily caused by steroid therapy. Posner-Schlossman syndrome (PSS), or glaucomatocyclitis crisis (GCC), is a slightly different condition. It manifests with recurrent episodes of highly elevated intraocular pressure and mild anterior uveitis. Keratic precipitates are small and distribute in the lower area of the corneal endothelium. Slightly dilated pupil and iris atrophy can be observed in an eye with multiple recurrent attacks. The inflammation and intraocular pressure respond well with topical steroid.

Case report

A 55-year-old Thai woman presented with a history of chronic recurrent episodes of anterior uveitis in her left eye for 2 years despite the treatment. Her past medical history included cervical adenocarcinoma for 10 years and was treated by transabdominal hysterectomy and radiation therapy. She has no history of joint pain, oral ulcer, or genital ulcer.

Her visual acuity was 20/20 OD and 20/70 OS, intraocular pressure was 11 mmHg OD and 28 mmHg OS. Slit-lamp biomicroscopic examination revealed medium-sized keratic precipitates, anterior chamber cells 2^{+}, and moth-eaten iris atrophy in her left eye, no abnormality was detected in her right eye. Fundus examination was normal in the right eye but demonstrated large cupping in the left eye.

Currently, her left eye was treated with 1% prednisolone acetate qid, cosopt bid, and 0.15% brimonidine bid. Immunological profiles including antinuclear antibody (ANA), rheumatoid factor (RF), antidouble-stranded DNA antibody

(antids-DNA), veneral disesase research lab antibody (VDRL), Treponema pallidum hemagglutination assay (TPHA), and antiHIV antibody were negative. The presumptive diagnosis was chronic hypertensive anterior uveitis.

Discussion

Both FHI and PSS demonstrate no known etiology while herpesvirus family is verified as a distinct cause of anterior uveitis associated with elevated intraocular pressure. Eight human herpesviruses have already been recognized. Most common viruses in the family include herpes simplex virus (HSV)[3], varicella zoster virus (VZV), and cytomegalovirus (CMV)[4]. Polymerase chain reaction and Goldmann-Witmer coefficient of the aqueous show highly sensitivity and specificity for the diagnosis[5].

Anterior uveitis caused by HSV and VZV is usually acute, unilateral, and may associate with skin lesion although chronic disease without skin lesion can be seen. Redness, pain, photophobia, and visual disturbance are common. Large mutton fat KPs or stellate KPs can be observed with marked iris atrophy. Elevated IOP is secondary to trabeculitis and synechiae. The inflammation will gradually subside after the treatment with systemic acyclovir and topical steroid. CMV-related anterior uveitis in immunocompetent patient is a newly described condition in the 20s. The age of onset is about 40. Chronicity and unilaterality are the main characteristics. Anterior chamber reaction is mild to moderate. Coin-shaped corneal endotheliitis is commonly observed with small to medium-sized KPs. Iris stromal and sphincter atrophy is variable. Posterior segment of the eye is usually not involved. Secondary glaucoma seems to be a common complication and refractory to anti-glaucoma medication and steroid in the absence of concomitant antiviral therapy. Cytomegalovirus is resistant to acyclovir and valacyclovir. Infection was reported to be controlled by ganciclovir or foscanet though there is no standard therapeutic regimen for CMV-associated anterior uveitis. Valganciclovir may be introduced to avoid intravenous administration.

Our case showed choronicity of unilateral anterior chamber inflammation and elevated IOP. The possible diagnosis was FHI or viral-associated anterior uveitis. Aqueous polymerase chain reaction for herpesvirus was performed and revealed positive for Cytomegalovirus DNA. The diagnosis of CMV-associated anterior uveitis was made and valganciclovir was prescribed for 2 months. The anterior chamber cells and intraocular pressure in the left eye gradually reduced during treatment period. Prednisolone acetate was tapered to once daily and brimonidine was discontinued. Her vision was 20/30 and intraocular was 16 mmHg in the left eye.

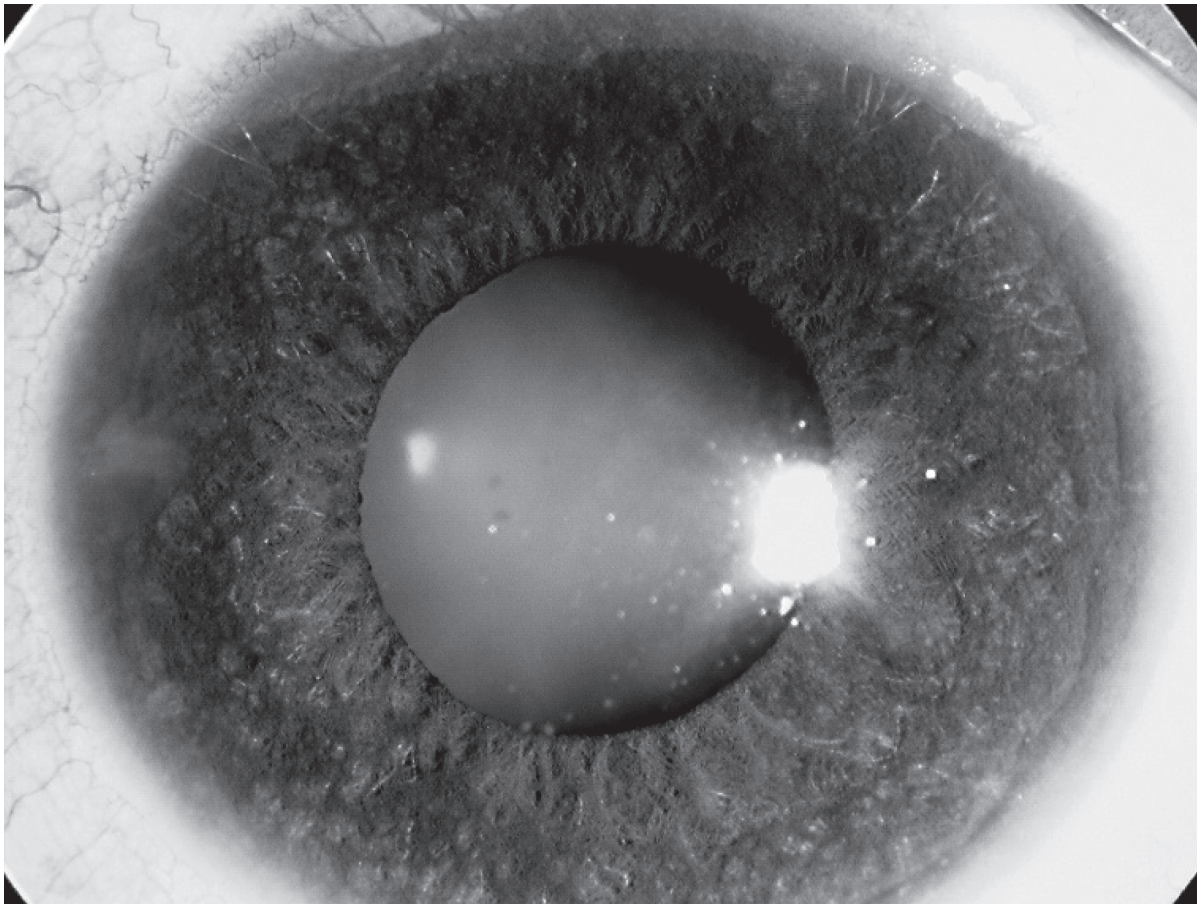

Figure 1 Slit lamp examination showed medium-sized keratic precipitates at the endothelium of cornea.

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