

## Fuchs' Heterochromic Uveitis

A Patient Education Monograph prepared for the American Uveitis Society

January 2003

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**NOTE:** The opinions expressed in this monograph are those of the author(s) and not necessarily those of the membership of the American Uveitis Society, its leadership, or the Editorial Board of UveitisSociety.org. All medical decisions should be made in consultation with one's personal physician.

### Introduction

Fuchs' heterochromic uveitis (FHU), sometimes known as Fuchs' heterochromic iridocyclitis, is a chronic (longstanding), relatively mild form of uveitis of unknown cause. . FHU is usually a unilateral disease (affecting one eye) but in about 15% of patients both eyes are involved. FHU typically presents as a chronic uveitis with change in the color of one eye compared to the other (a phenomenon referred to as "heterochromia," hence the name). FHU is commonly associated with the development of a cataract and/or glaucoma.

### History

FHU has been described in the medical literature since at least the 19<sup>th</sup> century. The first definitive characterizations and studies occurred in the beginning of the 20<sup>th</sup> century by Professor Earnest Fuchs from Vienna. Since then, many other ophthalmologists have added to our knowledge of this condition.

### Course of the disease

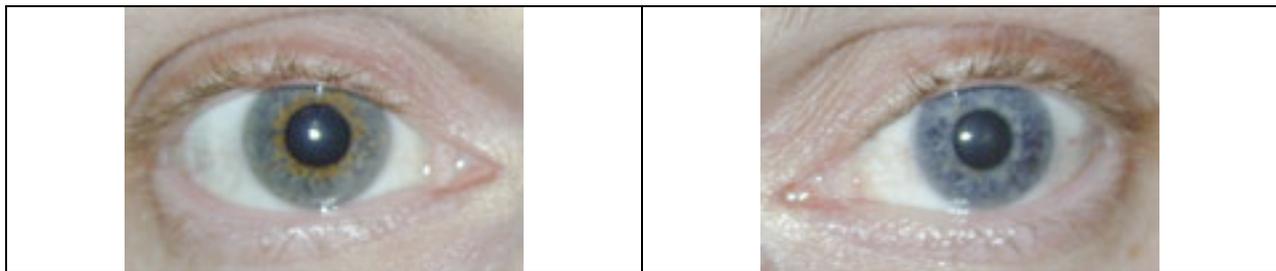
Many patients with FHU have no symptoms for many years. During that time, the eye shows mild signs of inflammation if examined, but the patient may not notice pain or redness. . . However patients may seek medical attention because of decreased vision, 'floaters' or a change in the color of one eye. FHU may also be discovered during routine eye examination.

Patients with FHU may experience periods of relative inactivity of their disease alternating with periods of activity and increased symptoms. In particular, patients tend to notice vitreous opacities and floaters when their vitreous detaches from the surrounding retina, a condition called posterior vitreous detachment (PVD). Once a PVD has occurred, the vitreous becomes

very mobile and its motion inside the globe casts shadows on the retina, perceived as "floaters".

### **Diagnosis and testing**

There is no laboratory test that can make the diagnosis of FHU. Rather, the clinical diagnosis is based on the findings of a mild chronic uveitis in association with other characteristic changes in the eye, including flattening and thinning of the iris which may sometimes, but not always, cause heterochromia (Figure 1). If there is heterochromia, the affected eye may be lighter or darker than the healthy eye. Other useful signs are the presence of inflammatory cells on the back surface of the cornea (keratic precipitates). In FHU these keratic precipitates are distinct in their appearance and distribution. Other types of uveitis may need to be ruled out, which is usually done by careful history and the performance of laboratory testing.



**Figure 1.** Right and left eyes of a patient with FHU. Note the difference in color between eyes.

### **Treatment**

Unlike most uveitis syndromes, FHU does not usually respond to corticosteroid treatment. Most uveitis specialists avoid the long-term use of corticosteroids in FHU.

There are two conditions which may require medical and/or surgical treatment in FHU.

1. **Cataract.** This typically presents as a gradual blurring of vision, possibly associated with glare while driving at night and difficulty reading. Cataract is diagnosed on examination by an ophthalmologist. Cataracts may be removed surgically when they become bothersome to the patient and impair performance of one's activities of daily living.
2. **Glaucoma.** In most cases, glaucoma does not cause symptoms in the early stages, and is only detectable by examination. However, if undetected and untreated, glaucoma causes gradual damage to the optic nerve with irreversible loss of peripheral (side) vision. Patients with FHU should therefore be examined periodically even if they notice no new symptoms. Once detected, glaucoma can be treated medically with eye drops and occasionally pills. Some patients require glaucoma surgery in order to control the pressure inside their eyes and prevent visual field loss.

### **Cause of disease**

The cause of FHU is unknown. Several theories have been suggested over the years, but this question remains unanswered. FHU may in fact be a "final common pathway" to more than one

eye problem. .

### **Prognosis**

Most patients with FHU have an excellent prognosis. The most important potential problem is the development of glaucoma. Therefore, routine examination by an ophthalmologist is recommended.

### **Research and Future Outlook**

Similar to other uveitic conditions, much remains to be learned regarding FHU, including the exact cause and improved methods of treatment. These issues continue to receive attention by vision scientists.

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