Pediatric Rheumatology Program

BC Children’s Hospital

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**UVEITIS**

INFORMATION FOR PATIENTS AND FAMILIES

**WHAT IS UVEITIS?**

Uveitis refers to a number of rare conditions in which there is inflammation inside the eye. Uveitis can affect any part of the eye, along the uveal tract which supplies blood to other parts of the eye. Although rare, uveitis is the third leading cause of preventable blindness in the developed world.

**WHAT ARE THE SYMPTOMS OF UVEITIS?**

Symptoms may include pain or redness in the eye, sensitivity to light, blurred or diminished vision, or seeing black spots,. However **many children with uveitis will have no symptoms at all**.

**WHAT CAUSES UVEITIS?**

We don’t know what causes uveitis. Uveitis can be associated with Juvenile Idiopathic Arthritis (JIA), other autoimmune disease or certain infections; however, many cases of uveitis are not associated with any of these underlying conditions. Uveitis can affect 20% of children diagnosed with JIA. The most common type of uveitis affects the front part of the eye (the iris) and is called anterior uveitis. This is usually the type of uveitis seen in children with JIA. Inflammation can also affect the back of the eye called posterior uveitis. Another form of uveitis is pars planitis. This inflammation affects the narrowed area between the colored part of the eye and the choroid.

**HOW IS UVEITIS DIAGNOSED?**

Uveitis is diagnosed by an ophthalmologist (medical eye doctor) using a special microscope called a slit lamp. Inflammatory cells can be seen inside the eye by shining a light across the eye. This cell count helps determine the disease activity and severity. In most types of JIA children may have no eye symptoms; therefore regular eye exams are important. If uveitis is not diagnosed early, affected children can get permanent damage to the eye, which results in poor vision or in the worst case, blindness.

**WHAT IS THE TREATMENT?**

The goal in treatment is to prevent vision loss and to prevent damage to the eye. Treatment choices often will depend on the type of eye inflammation and how severe it is.

Corticosteroids:

***Drops***

Corticosteroid eye drops are the most commonly used medications to treat uveitis. These medications are usually extremely effective in reducing the irritation and swelling. The frequency of these drops is dependent on the amount of inflammation seen in the eye. Drops may have to be given many times a day. Cycloplegic drops (to dilate the eye) may also be prescribed to help reduce some of the symptoms experienced such as sensitivity to light, and to help prevent scars from forming inside the eye. About 30% of children will not have adequate control of eye inflammation with only drops. If inflammation to the eye still requires frequent steroid drop treatment, most ophthalmologists will recommend systemic immunosuppressive drugs. Patients that have posterior uveitis do not generally respond to topical eye drops.

***Systemic***

Corticosteroids may also be given by mouth or by intravenous infusion in some cases when inflammation is severe. Corticosteroids given in this manner can sometimes help to reduce inflammation quickly while waiting for other medications to work.

***Injections***

Sometimes corticosteroid injections are required to help control some forms of uveitis.

**Immunosuppressant drugs:**

***Methotrexate***

Methotrexate is a disease modifying drug that helps to decrease the production of the cells of the immune system that activate inflammation. If eye drops have not been effective or uveitis flares up every time eye drops are tapered, this is usually the next medication used. If your child’s ophthalmologist recommends this medication the rheumatology team will prescribe this medication and monitor for any side effects. It is often given as a pill that is taken once a week, but some children require a weekly injection if this is not effective.

Other immunosuppressant drugs may be prescribed if methotrexate is not effective or cannot be tolerated such as Cellcept, Imuran, or Cyclosporine.

**Biologics:**

***Infliximab***

Infliximab is a protein called a TNF blocker. Tumor Necrosis Factor (TNF) is made by your body’s immune system and too much TNF can cause inflammation. Infliximab blocks the action of TNF in the body thereby reducing inflammation. Infliximab has been shown to be effective in treating uveitis in patients who do not get response from methotrexate or other oral medications.

Infliximab is given by intravenous infusions, often given in the medical day unit at Children’s Hospital. Once the initial few doses are given, the subsequent doses are usually given every 6-8 weeks. Children may be on this medication for 1-2 years. In some cases, the infusions can be arranged to be given in a centre closer to home for families from a long distance away.

In some patients, infliximab is either not effective, or not practical. There is some evidence that a different TNF blocker, adalimumab (Humira), is also effective in treating uveitis. Adalimumab is given by a weekly or every two weekly subcutaneous injection.

Detailed information and handouts regarding these medications and their side effects will be given to families by the rheumatology team.

**WHAT IS THE LONG TERM OUTLOOK FOR UVEITIS?**

The outlook varies depending on the type of uveitis, its severity and duration, and whether it responds promptly to treatment. If diagnosed and treated promptly the prognosis is usually very good. However some children require medication for many years and may have a relapse of the inflammation years later. When the uveitis is severe, your child may have reduction in their vision. If this happens your child will require adaptations to their school and recreational activities.

**WHY DO I SEE OPTHALMOLOGY AND RHEUMATOLOGY?**

Children with uveitis only (do not have JIA) and require additional treatment other then eye drops will be referred to the rheumatology team to assist in prescribing and monitoring medications. The rheumatologist is guided by assessments done by the ophthalmologist so it is important to keep these appointments. The ophthalmologist will communicate any changes in your child’s eyes to the rheumatologist. Appointments are coordinated as much as possible on the same day.

**WHO DO I CALL WITH QUESTIONS?**

Questions directly related to the amount of inflammation in your child’s eyes should go directly to ophthalmology. Any information regarding medications, dosages and side effects can be directed to the rheumatology team.

For additional information please go to: [www.uveitis.org](http://www.uveitis.org)