

Iritis

WHAT IS IRITIS?

Iritis is inflammation of the iris (the colored part of the eye). White blood cells can be seen in the front part of the eye (anterior chamber) by an ophthalmologist using a microscope known as a slit lamp. [See figures].



Fig. 1: Anterior chamber inflammation associated with iritis.

WHAT CAUSES IRITIS?

Iritis can have many causes, including trauma, infection and autoimmune diseases such as Juvenile Idiopathic Arthritis (JIA), inflammatory bowel disease (ulcerative colitis and Crohn disease), nephritis, and reactive arthritis. It can also be associated with conditions like leukemia and Kawasaki syndrome. Often, though, no identifiable cause can be found. JIA is one of the more common conditions associated with iritis in kids, and children with this condition require routine screening for inflammation in the eye.

WHAT ARE THE SYMPTOMS OF IRITIS?

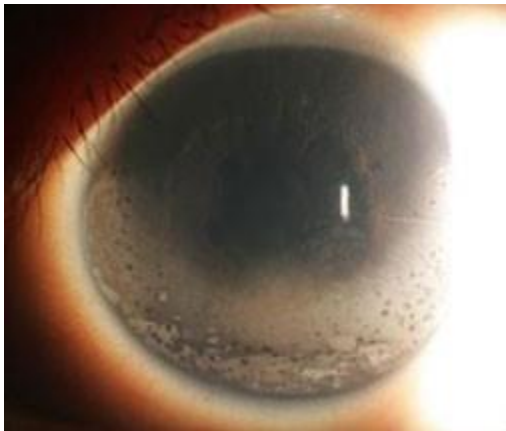
Iritis may occur in one or both eyes. Children with symptomatic iritis may complain of pain, light sensitivity, decreased vision, red eye, headache and/or irregularly shaped pupils. The iritis associated with JIA is usually asymptomatic until after visual loss has already occurred. For this reason, both ophthalmologists and rheumatologists have developed recommendations for the frequency of eye exams. These exams can be as often as 4 times a year to monitor for this unrecognized inflammation.



Fig. 2: Synechiae, inflammatory adhesions between the iris and lens surface.

WHAT ARE THE COMPLICATIONS OF IRITIS?

Iritis may cause many ocular problems including iris attachments to the lens (posterior synechiae) or other eye structures (peripheral anterior synechiae) [cataracts](#), [glaucoma](#), inflammation in the vitreous (vitritis) and retina (retinitis), swelling in the back of the eye (macular edema) as well as calcium accumulation on the cornea (band keratopathy). In severe cases, the optic nerve may also be affected (papillitis). These problems can cause severe visual loss, including blindness.



- **Fig. 3:** Band keratopathy: calcium deposits on the corneal surface.

WHAT TESTS ARE ORDERED FOR CHILDREN WITH IRITIS?

The tests ordered when a child is diagnosed with iritis depend on clinical symptoms and signs. Testing is often not done for a first isolated case of iritis in one eye. When iritis is recurrent or affecting both eyes, testing is

usually recommended. Testing may include blood tests for antinuclear antibodies (ANA), rheumatoid factor (RF), HLA-B27 haplotype, sedimentation rate, and certain infections. Imaging may include CT scan of the chest, gallium scan and sacroiliac xrays. In the case of suspected sarcoidosis, a tissue biopsy may be performed. There are many other tests that may be ordered to help identify a possible cause for the iritis.

HOW IS IRITIS TREATED?

The effective treatment of acute or chronic eye inflammation often requires collaboration between an ophthalmologist and pediatric subspecialists, such as rheumatologists.

MEDICATIONS

Treatment depends on the severity of the ocular inflammation. Topical steroid eye drops are the initial treatment, but steroid may also be given as an injection around the eye or taken orally. Other systemic medications utilized include methotrexate, infliximab (Remicade) and adalimumab (Humira). Dilating eye drops are frequently used to prevent the iris from sticking to other ocular tissues, most notably the lens. Medications for glaucoma are sometimes required. The overall goal of treatment is to eliminate inflammation and minimize the amount and duration of steroid required.

SURGERY

If calcium accumulates on the cornea, surgical removal may be indicated [See figure 3]. An iritis or steroid-induced cataract may necessitate surgical removal. If glaucoma develops and cannot be controlled medically, surgery may be required to lower the eye pressure.

RESOURCES

For more information, you can access the following web sites:

- [Ocular Immunology and Uveitis Foundation](#)
- [American Academy of Ophthalmology](#)

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