

Patient information on Uveitis

Uveitis is inflammation of the inside of the eye which can affect one or both eyes. Patients with ocular inflammation may have components of orbital inflammation (inflammation of the tissues around the eye), scleritis (inflammation of wall of the eye), and episcleritis (the vascular tissues over the eye wall). Ocular inflammation can be due to systemic inflammatory diseases or infection, and so blood tests and imaging are often indicated in an evaluation. Despite extensive testing, many cases of uveitis remain undifferentiated and sometimes repeated tests and examination are necessary for evaluation and management.

Below is a summary of blood tests commonly ordered in an evaluation of uveitis to help you understand what is being tested:

- Treponemal tests for syphilis (Syphilis IGG, VDRL, RPR, FTA-ABS, MHA-TP). Syphilis infection is very rare, but it can cause forms of uveitis. Because it is a serious condition, many patients with uveitis are evaluated for this, even if suspicion of infection is not high.
- Tuberculosis tests (TSPOT, Quantiferon gold, PPD skin test). Tuberculosis is leading cause of uveitis worldwide.
- Complete blood count (CBC). This test provides information about the different types of red cells, white cells, and platelets in the body.
- Complete metabolic panel (CMP). This test provides information about electrolytes in your body as well as kidney and liver function.
- Anti-neutrophil cytoplasmic antibodies (ANCA). This is a test for certain types of vasculitis.
- Angiotensin converting enzyme (ACE) and lysozyme. These are tests for a systemic inflammatory condition called sarcoidosis.
- Urinalysis (UA). This is a test of components of your urine for signs of infection or inflammation.
- Toxoplasma, Bartonella, Toxocara serologies. These are tests can demonstrate if you have current or previous exposure to organisms called Toxoplasma, Bartonella, and Toxocara, which can cause eye inflammation.
- HIV testing. Because have a weak immune system can predispose patients to eye inflammation, HIV testing is sometimes indicated.

In your evaluation and management, you may have the following tests done in clinic and evaluated by your physician:

- Optical coherence tomography (OCT): This is a special type of picture of the eye that can provide information about layers of the retina, including whether or not swelling (edema) or atrophy is present.
- Fluorescein angiography (IVFA or FA). This is a test in which a yellow dye is administered into a peripheral vein. As the dye enters the bloodstream it travels to the eyes, where it can be photographed by cameras with a special filter. This test provides information about blood flow in the eye. The dye exits the body in the urine, sweat, and

tears and can make these fluids appear yellow. Very rarely, patients can have a reaction to the dye causing nausea and other problems.

- Indocyanine green angiography (ICG or ICGA). This is similar to fluorescein angiography, but a different dye is used. This dye contains iodine and cannot be given to patients with an iodine allergy.
- Anterior chamber or vitreous paracentesis. This a test where fluid is taken out of the eye with a small needle and sent to a lab for testing.
- Visual field testing. This is a test done to evaluate how well patients see things centrally or peripherally (or in their "side vision").

Patients with ocular inflammation may be started on systemic immunosuppression to reduce inflammation for disease that is difficult to treat with local eye treatments, severe inflammation, and chronic or systemic disease. All patients started on systemic immunosuppression require monitoring to limit risk from adverse events as all forms of immunosuppression can affect red cell counts (anemia), white cell counts (increasing risk of infection), and platelets (increasing risk of bleeding). Electrolytes, kidney function, and liver function are also generally monitored. Below is a summary of commonly recommended forms of immunosuppression:

- Steroids, including prednisone. Steroid use is associated with elevated blood pressure, difficult in controlling blood sugars, psychologic changes (including anxiety, psychosis, and depression), change in eye pressure, and weight gain. They are also associated with increased risk of high eye pressure (glaucoma), cataract, and eye infection. Patients are encouraged to see a medical physician for these issues, should they occur, especially chest pain, headache, or signs of stroke (loss of consciousness or inability to move one or more body parts). Your regular medical doctor can help you adjust your medications to control your blood pressure and blood sugar. Long term use of steroids is associated with decreased bone density and endocrine dysfunction, so most steroid use is limited to three months or less, when possible. Patients may also develop acne, bruising, rounding of the face, increased fat between the shoulders, and pink/purple stretch marks on the skin of abdomen, thighs, breasts, and arms. Supplementation with calcium and vitamin D may be necessary if steroids are taken long term. If you start steroids, it is important that you let your doctor know if you are experiencing any problems with the medication.
- Mycophenolate mofetil (Cellcept)
- Azathioprine (Imuran)
- Methotrexate (Trexall)
- Adalimumab (Humira)
- Infliximab (Remicaide)
- Rituximab (Rituxan)