

# Management Tips for Uveitis

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**C**omprehensive literature on uveitis is available in abundance. In this article we present practical tips for uveitis management. The points highlighted are targeted at ophthalmologists who are in their early years of training. It has been presumed that the postgraduate trainees do have some background knowledge of uveitis. For the seniors the points will simply serve as revision.

## Points Regarding History Taking in Uveitis

1. Symptoms of uveitis may be absent in some situations especially when associated with juvenile rheumatoid arthritis (Still s disease) but most patients with iritis complain of photophobia, pain redness of eye and blurred vision.
2. Posterior uveitis tends to be less painful or totally painless and is associated with varying degrees of visual reduction depending upon whether macula is involved or not.
3. Sometimes patients with posterior uveitis may only complain of floaters.
4. One should inquire about ocular injury, use of topical medications and previous ocular infection (e.g. Herpes).
5. Questions regarding symptoms of possible associated systemic disease may require an almost complete review of symptoms. One should at least ask about following symptoms: joint pains or swelling, low back pain, swollen lymph nodes or

glands, cough, sinusitis, fever, skin rash, genital lesions, gastrointestinal dysfunction, exposure to infectious agents (i.e. TB syphilis, herpes simplex etc) and headache or other neurological symptoms<sup>1</sup>.

## Ophthalmic Considerations in Uveitis

1. In any patient with uveitis the ophthalmologist must be sure that there is no ocular cause for the inflammation before systemic work up is considered e.g. phacoanaphylactic glaucoma, Fuchs uveitis etc.
2. A variety of intraocular tumors may also mimic uveitis eg retinoblastoma may cause hypopyon, iris nodules and cells in the aqueous humour. Leukemia, lymphoma may mimic uveitis.
3. During management and follow up of patients with uveitis, one should strive to avoid a variety of complications. These include band keratopathy, cataracts, cystoid macular oedema, preretinal macular fibrosis, secondary glaucoma and exudative/ tractional retinal detachment.

## Medical Considerations in Uveitis

1. A variety of specific infectious agents have to be considered i.e tuberculosis, syphilis herpes simplex and TORCH infections (in pediatric age group).

2. Collagen vascular diseases may be associated with uveitis.
  3. Despite the many causes of uveitis, the majority of patients with isolated uveitis and no history suggestive of systemic disease are otherwise healthy.
  4. Posterior uveitis may also be unassociated with systemic problem however under appropriate settings recognized causes of posterior uveitis such as TB, sarcoidosis, syphilis, Whipple's disease, Wegener's granulomatosis, SLE, lymphoma etc must be considered more seriously.
  5. Complete blood count, ESR, immunoglobulin electrophoresis and rheumatoid factor may be of some value depending upon the clinical situation.
  6. Sometimes serological tests for leptospirosis and brucellosis may be needed under certain difficult situations.
  7. An x ray chest film maybe useful in the diagnosis of tuberculosis and sarcoidosis.
  8. A skull x ray maybe useful in determining changes due to histiocytic lymphoma and congenital toxoplasmosis.
  9. Anterior chamber cytologic examination maybe helpful to differentiate histiocytic lymphoma from inflammatory uveitis.
  10. Parasites may be seen in stool specimen.
2. In a patient who has a combination of keratitis and uveitis (keratouveitis) associated with raised IOP; always keep in mind possibility of herpes as a cause. This is because herpes associated keratouveitis frequently develop trabeculitis giving rise to secondary raised IOP.
  3. If difficulty arises in differentiating acute anterior uveitis from acute angle closure glaucoma do not give topical drugs which alter pupillary size. a topical steroids in order to combat the inflammatory response along with IOP lowering medication. When diagnosis becomes clear, specific therapy can be started.
  4. Consider Posner Schlossman Syndrome when diagnosing acute angle closure glaucoma and vice versa, since both conditions may appear similar but have some differences in treatment.

#### **Investigations in a Uveitis Patient**

1. A battery of investigations is not likely to be helpful in every patient. Investigations in a particular patient with uveitis should be tailored in the light of history and examination of the patient.
2. Generally speaking Investigation of a uveitis patient is only indicated if systemic pathology is being suspected for example there is no point to carry out investigations in a straight forward case of Fuch's uveitis syndrome.
3. When confronting a uveitis patient, after taking a good history, carry out a general physical examination. Comprehensive investigations are unlikely to be helpful if history and general physical examination are not contributory.
4. Generally speaking patients falling under the following categories may be considered for investigation.
  - a. Patients with recurrent attacks of uveitis.
  - b. Patients with bilateral disease.
  - c. Patients with granulomatous type of uveitis (From Guidelines for Investigating Uveitis from Royal College of Ophthalmologist).

#### **Uveitis and the Skin**

'No examination of a uveitis patient is complete without examination of the skin.' The above mentioned statement cannot be overemphasized considering the galaxy of conditions having dermatological involvement and also having association with uveitis e.g. sarcoidosis, TB, Behcet's syndrome, psoriasis, Vogt Koyanagi Harada syndrome, leprosy etc.

#### **Uveitis and Glaucoma**

1. Patients with uveitis should be presumed to be suffering from secondary glaucoma until proved otherwise. Many patients with uveitis especially anterior uveitis may be having secondary glaucoma due to associated trabeculitis. The patient may not necessarily have corneal edema or cupping and raised IOP may be the only sign of secondary glaucoma. Therefore it is prudent to check intraocular pressure in every patient with uveitis and it should be checked repeatedly even as the disease is being controlled by steroids. Since steroids themselves can give rise to secondary glaucoma.

#### **Anterior Uveitis and Posterior Uveitis**

1. Any patient with anterior uveitis should be presumed to be suffering from posterior uveitis until proved otherwise. Therefore pupil should be dilated and posterior segment examination carried out to exclude the latter. Many patients who primarily have posterior uveitis may also exhibit signs of anterior segment involvement. If the clinician only examines the

anterior segment, he may miss posterior segment findings and a wrong diagnosis of 'anterior uveitis only' may be made.

2. Before labeling a patient as Fuch's uveitis, one must exclude pars planitis because sometimes both conditions may have similar anterior segment findings. Therefore pupil should be dilated and snow banking looked for<sup>2</sup>.
3. Make every possible effort to break posterior synechae in patients with acute anterior uveitis at their first visit; this may be the only chance of breaking them.
4. In some patients, the presence of posterior uveitis maybe suspected if the anterior vitreous contains cells or flare and may be confirmed by examining the posterior segment.

#### **Arthritis and Uveitis**

1. Any child with Still's disease should be examined to exclude chronic anterior uveitis even though the child may be asymptomatic.
2. Rheumatoid arthritis in adults is not a recognized association of uveitis. However ocular complications of rheumatoid arthritis may secondarily cause uveitis<sup>3</sup>.

#### **Uveitis and Tuberculosis**

1. Tuberculosis should always be considered high in the differential diagnosis when dealing with uveitis in the subcontinent.
2. The granulomatous uveitis produced in TB is very similar to the granulomatous uveitis, in other conditions therefore other evidence of TB has to be sought through history, clinical examination and investigations to label a person as tuberculous uveitis.
3. When interpreting Mantoux test in a uveitis setting it is not only important to see whether patient is Mantoux positive or negative but also it is important to see how exaggerated is the response with minimum dilution of Mantoux reagent. An exaggerated response with minimum dilution points towards an active tuberculous focus in the body.

#### **Uveitis due to Toxoplasmosis**

1. Toxoplasmosis is the commonest cause of posterior uveitis worldwide.
2. In serological testing for toxoplasmosis, a negative test has more diagnostic value rather than a positive test. A negative test implies that the

patient has not been exposed to the toxoplasma antigen, therefore uveitis in such a setting is not likely to be due to toxoplasmosis.

3. When treating ocular toxoplasmosis prednisolone should only be used under the therapeutic cover of specific antiparasitic therapy<sup>4</sup>.
4. AIDS patients with ocular toxoplasmosis may show minimum vitreous reaction whereas in immunocompetent patients vitritis is quite marked.
5. Pyrimethamine (daraprim) should be avoided in the treatment of ocular toxoplasmosis in an AIDS patient since it causes neutropenia.
6. Pregnant females with ocular toxoplasmosis are recommended to use spiramycin since other drugs are likely to be harmful to the foetus.

#### **Uveitis and Drugs**

1. Following drugs may induce uveitis  
Metipranolol  
Rifabutin  
Latanoprost  
Cidofovir  
Epinephrine drops
2. Central serous retinopathy is an important but overlooked complication of systemic steroid therapy.
3. Cyclosporin A should be avoided in patients above 50 years of age since it is not well tolerated by patients who are middle aged and beyond.

#### **CMV Retinitis**

CMV retinitis is the most common intraocular infection in an AIDS patient<sup>5</sup>.

#### **Reticulum Cell Sarcoma Masquerading as Uveitis**

In patients who develop 'uveitis primarily after the age of 50 years, consider CNS lymphoma which may mimic uveitis. Classic signs of intraocular lymphoma are vitreous veils and vision better than you would expect for that degree of vitritis.

#### **Uveitis Due to Infective Causes**

Uveitis due to infective causes remains one of the main reasons for the adequate investigations of patients presenting with intraocular inflammation since specific treatment may result in a cure and failure to detect intraocular infection can be disastrous.

1. Generally speaking uveitis due to infection should be suspected under the following circumstances
  - a. presence of a concurrent or recent infective disease or surgery

- b. uveitis presenting at extremes of age
  - c. uveitis that fails to respond as expected
  - d. patients with uveitis from parts of world where specific infections are common.
2. Uveitis related to fungal infections (candida, aspergillus) are almost always seen in patients with long-term venous access (i.e.) drug abusers or patient in intensive care<sup>6</sup>.

### **Juxtapapillary Chorioretinitis**

This is chorioretinitis occurring adjacent to the optic disc. It is no different from chorioretinitis occurring elsewhere in the fundus. Its importance lies in the fact that owing to close proximity to the optic disc, it can cause diagnostic confusion with entities like anterior ischemic optic neuropathy, papillitis, papilloedema etc. It has been the experience of the authors where one initially diagnosed case of juxtapapillary choroiditis later on turned out to be metastasis from a malignancy in the abdomen.

### **AIDS**

Due to its varied modes of intraocular presentation, AIDS can be considered in differential diagnosis of any intraocular inflammation just as neurosyphilis used to be considered in differential diagnosis of any pathology of CNS.

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