**STANDARD OPERATING PROCEDURE (ANTERIOR UVEITIS)**

1. **HISTORY**

 **Following points pertaining to the presenting complaints will be obtained**

* Redness
* Pain
* Photophobia
* Watering
* Visual disturbances in the form of
* Blurring of vision
* Scotomas
* Floaters
* Onset
* Sudden
* Insidious
* Duration
* Limited ( < or equal to three months duration )
* Persistent ( > three months duration )

Based on above the disease will be classified as

 Acute (Episode characterized by sudden onset and limited

 duration)

Recurrent (Repeated episodes separated by periods of inactivity

 without treatment > 3 month’s duration)

Chronic (Persistent uveitis with relapse in <3 months after

 discontinuing treatment)

* Associated symptoms: Fever, cough, joint pains, skin rashes, burning

 micturition, aphthous ulcers

* 1. **PAST HISTORY OF:** Similar illness/ trauma
	2. **HISTORY OF ANY SYSTEMIC ILLNESS:** will be elicited and recorded

 For connective tissue disorder, tuberculosis or Immunocompromised

 state

1. **OCULAR EXAMINATION:**
* Visual acuity
* Visual axis
* Eyelid and skin ( vitiligo or nodules )
* Conjunctiva (perilimbal or diffuse injection or nodules)
* Pupillary reactions (sluggish or brisk and comparison on both sides)
	1. **SLIT-LAMP EXAMINATION:** Following will be looked for and documented.
1. Corneal endothelium. Keratic precipitates (mutton fat / fine)

1. Anterior Chamber … Cells and Flare grading will be done as per the recommendations of SUN working group
2. CELLS:

|  |  |
| --- | --- |
|  GRADE |  CELLS IN THE FIELD (1x1 MM) |
|  0 |  No cells |
|  +/- |  <5 |
|  1+ |  6-15 |
|  2+ |  16-25 |
|  3+ |  26-50 |
|  4+ |  >50 |

1. FLARE:

|  |  |
| --- | --- |
|  GRADE  |  DESCRIPTION |
|  0 | None |
|  1+ | Faint |
|  2+ | Moderate(Iris and lens details clear) |
|  3+ | Marked(Iris and lens details hazy) |
|  4+ | Intense( Fibrin and plasmoid Reaction) |

1. Pigment dispersion
2. Hypopyon
3. Hyphema
4. Iris
* Nodules
* Peripheral Anterior synechiae or Posterior synechiae
* Atrophy
* Heterochromia
1. Anterior vitreous….for inflammatory cells

|  |  |
| --- | --- |
|  GRADE |  NUMBER OF CELLS |
|  0 |  NO CELLS |
|  +/- |  1-10 |
|  1 |  11-20 |
|  2 |  21-30 |
|  3 |  31-100 |
|  4 |  >100 |

1. Traction bands

 **2.1 GONIOSCOPY (angle)**

1. Peripheral anterior synechiae
2. Nodules
3. Vascularization
	1. **INTRAOCULAR PRESSURE** will be recorded.
	2. **AFTER THE EXAMINATION, UVEITIS WILL BE CONFIRMED AS:**
4. **Granulomatous** anterior uveitis will present with

Insidious onset

Minimal pain, photophobia, ciliary congestion, aqueous flare

Mutton fat KPs, thick posterior synechiae and iris nodules

1. **Non granulomatous** anterior uveitis will present with

Acute onset

Marked pain, photophobia, ciliary congestion, aqueous flare

Fine KPs, thin posterior synechiae and absent iris nodules

1. **INVESTIGATIONS:**

 There is no one standardized battery of tests that needs to be ordered

 for all patients with uveitis**.**

 A tailored approach will be taken based on clinical evaluation of each

 patient.

|  |  |
| --- | --- |
| **GRANULOMATOUS** |  **NON-GRANULOMATOUS** |
| CBC | CBC |
| ESR/TLC/DLC | ESR/TLC/DLC |
| SGOT/SGPT(Sarcoidosis, hepatitis) | BUN/CREATININE(TINU) |
| S.ACE levels(Sarcoidosis) | ANA/RA FACTOR. (JIA-related iridocyclitis, connective tissue disorders) |
| VDRL/RPR/FTA-ABS/MHA-TP(syphilis) | HLA-B27, B51( Seronegative spondyloarthropathies and Behcet’s |
| Toxoplasma antibodies |  |
| Lyme disease serology |  |
| Brucella serology |  |
| HIV serology |  |
| EBV,HSV,VZV serology |  |
| Chest X-ray | Chest X-ray |
| B-scan | Sacroiliac joint X-ray |
| CT-scan | B-scan |

1. **TREATMENT**

**4.1** **NON-SPECIFIC TREATMENT**

**• Cycloplegic**: Strong cycloplegics will be used to keep the pupil dilated or to break already formed synechiae and to relieve photophobia:

Atropine 1% TDS and Homatropine 2% BD, Duration guided by response.

Once the inflammation has been controlled, short acting mydriatics / cycloplegics (Tropicamide 0.5% or 1%, Cyclopentolate 1%) will be used to keep pupil mobile.

• **Subconjunctival injection** of Mydricaine 0.25ml (atropine 1mg, adrenaline 0.12mg, xylocaine 6mg) will be given to break posterior synechiae not responding to above drugs.

• **Topical steroids**: The dose and duration of corticosteroid therapy will be individualized.

• Therapy will be started with a high dose of topical corticosteroids and then it will be tapered as the inflammation subsides, rather than beginning with a low dose that may have to be progressively increased to control the inflammation

• **Drugs** will include: Prednisolone acetate 1%, Betamethasone 0.1%,

Initial therapy will include instillation of drops hourly according to the severity of inflammation. After the control of inflammation, careful tapering to 2 hourly, followed by 3 hourly, then 4 hourly and eventually reduced to one drop a week. Drops will be discontinued after 5-6 weeks.

• **Systemic** **steroids**: Oral prednisolone 1mg/kg/day in anterior uveitis resistant to topical therapy in tapering doses depending upon the clinical response of the patient will be given.

• **Periocular steroids**: When a patient is noncompliant with or unresponsive to topical or systemic administration, periocular injection of Triamcinolone acetonide 40mg/ml will be given.

* 1. **SPECIFIC TREATMENT:**

**1.Tuberculosis:** ATT ( steroids under cover of ATT)

**2.Leprosy**: Multidrug regimen- Rifampicin, Dapsone and Clofazimine

**3.Sarcoidosis:** Steroids, Methotrexate (10-25 mg/weekly, orally along with Folic acid 5mg daily orally is given)

**4.JIA**: Topical steroids, periocular injections and low dose methotrexate for steroid resistant cases (10-25 mg/weekly, orally along with Folic acid 5mg daily orally is given)

**5. Syphilis:** Benzathine penicillin G (i.v. 12-24 million units daily for 10-15 days)/ Tab.Doxycycline 100mg BD for 30 days in Penicillin allergic individuals will be given

**6. Behcet’s disease:** Azathioprine (1-3mg/kg once daily or in divided doses, stopped only when disease has been inactive for over 1 year or steroid dose is under 7.5 mg)

Mycophenolate mofetil (1-2g/daily orally)

Ciclosporine (2.5-7mg/kg daily orally)

**7. Toxoplasmosis:** Antiparasitic drugs (Sulfadiazine 1g q.i.d for 3-4 weeks + Pyremethamine as a loading dose of 50mg followed by 25-50mg/daily for 4 weeks in combination with Folic acid 5mg )

 **8. Leptospira**: Oral Amoxycillin+Clavulanic Acid for 3 weeks

 **9. Onchocerciasis:** Ivermectin 12mg once a year

 **10. HIV:** ART Regimen

 **FLOWCHART DEPICTION**

**Type of Inflammation Associated factors Suspected Disease Laboratory Tests, lmaging**

Acute sudden onset, Arthritis, Back pain, Seronegative HLA-B27,

 Spondyloarthropathies Sacroiliac films

Severe with or without GI/GU symptoms, Behcet’s Disease HLA-B5, B51

Fibrin membranes or Aphthous ulcers.

Hypopyon Post surgical, Post Infectious Endophthalmitis Vitreous culture

 Traumatic. Vitrectomy

 None Idiopathic

Moderate severity shortness of breath Sarcoidosis Serum ACE,

 (red, painful) African descent Lysozyme, Chest x-ray, biopsy

 Post traumatic Traumatic iritis

 Increased IOP Glaucomatocyclitis

 Herpetic Iritis

 Poor response to steroids Syphilis RPR, VDRL, FTA-ABS

 Post cataract extraction Low grade endophthalmitis Vitrectomy, culture

 IOL related iritis

 None Idiopathic

Chronic, minimal Child with arthritis JIA iridocyclitis ANA, ESR,RAFactor

 Pain and redness Heterochromia, Fuch’s heterochromic None

 Diffuse KP’s, U/L Iridocyclitis

 Post surgical Low grade endophthalmitis Vitrectomy,culture