THE ROYAL VICTORIA EYE AND EAR HOSPITAL DUBLIN

LOOKING AFTER THE NATION'S EYES AND EARS SINCE 1897

Clinical Guideline for the treatment of

Anterior Uveitis

DESCRIPTION

Inflammation of the anterior uveal tract also referred to as iritis or iridocyclitis.

RED FLAGS

- AU is a diagnosis of exclusion after ruling out posterior ocular involvement (vitreous, retina, choroid)
- Beware of endophthalmitis if there is a history of intraocular surgery
- Beware of metastatic endophthalmitis (e.g. Klebsiella endophthalmitis) – always ask if there has been a recent history of fevers or sepsis
- Beware of infectious keratitis. Steroids may unmask Herpes simplex epithelial disease
- Beware herpetic viral origin if unilateral and associated with any one of reduced corneal sensation, Iris haemorrhages, Iris pigment atrophy/ transillumination
- Hypopyon and/or hyphema always requires immediate senior referral
- Beware of masquerade syndrome (e.g. malignancy, intraocular foreign body)
- In cases of chronic angle closure glaucoma, iris ischaemia can demonstrate anterior chamber cells
- Children < 16 years old should be discussed senior colleague

HOW TO ASSESS

HISTORY

- Pain, photophobia, redness, tearing, blurred vision.
- Prior history of similar symptoms.

EXAMINATION

- Perilimbal injection
- Corneal surface should be clear unless uveitis related to keratitis
- Corneal stromal oedema
- Corneal sensation

- Keratic precipitates (KP):
  - Non-granulomatous: fine precipitates on posterior corneal surface, usually inferiorly. If pigmented, usually old KP.
  - Granulomatous: large, greasy, "mutton fat" KP.
- Miotic pupil
- Irregular pupil shape possible if synechiae present
- Iris transillumination
- Cells/flare in anterior chamber (use high magnification, with a 1X1mm, high intensity beam of light, slit at a 45 degree angle)

Table 4: Grading of anterior chamber flare and AC cells (SUN Workshop).

Grade/description of AC Flare	Grade of AC cells	Cells in field*
0- None	0-	<1
	0.5+	1-5
1+ Faint	1+	6-15
2+ Moderate (iris and lens details clear)	2+	16-25
3+ Marked (iris and lens details hazy)	3+	26-50
4+ Intense (fixed and plastic aqueous)	4+	50+

**Field size is a 1x1mm slit beam.*

- Vitreous: should be clear. Can be mild spill-over of cells into anterior vitreous if significant anterior chamber inflammation
- IOP:
  - Low: ciliary body shutdown
  - High: blockage of trabecular meshwork with cells.

INVESTIGATIONS

- Take a proper systematic history to direct investigations. If no suspicion of systemic disease, may not be necessary to work-up initial attack.
- Consider referral to Uveitis service if: recurrent, severe, bilateral disease, granulomatous uveitis, or systemic symptoms.
- Patients under the age of 45 with a history of back pain for more than 3 months, or a history of joint pains requiring assessment by their GP, should be referred to Uveitis service for HLAB27 testing.

TREATMENT

Attempt to break synechiae:

• Topical medications:

Phenylephrine 2.5% eye drops every 5 minutes X 3 (check blood pressure prior to giving drops)

+ Tropicamide 1% eye drops every 5 minutes X 3

+ Cyclopentolate 1% every 5 minutes X 2

- Subconjunctival medications

If topical medication has failed to achieve good mydriasis use subconjunctival Mydricaine.

Mydricaine No. 2 is the formulation for adults aged 16-75. It comes as a 0.5ml ampoule. It contains atropine 1mg, adrenaline solution 1 in 1000 0.12ml (=0.12mg) and procaine 6mg.

Mydricaine No. 1 is the formulation for children and adults over 75 years. It comes as 0.5ml ampoule and contains the same constituents as Mydricaine No. 2 in half the doses.

Acute and transient anxiety, tremor, pallor, tachycardia are not uncommon after Mydricaine injection and patients should be kept lying down after the procedure. Rarely cardiac arrhythmias occur.

Manage inflammation:

- Topical steroids:

Topical intensive steroid using a strong preparation such as G. Prednisolone Acetate (Pred forte 1%) or Dexamethasone (Maxidex 0.1%).

- Subconjunctival medication:

If the inflammation is very severe at presentation, consider subconjunctival corticosteroid e.g. Dexmethasone 4mg or Bethamethasone 4mg).

Elevated IOP

Manage with topical antihypertensive drops.

FOLLOW-UP

Suggested guidelines:

- Trace - 2+ : Review at 1 week
- 2+ - 3+ cells : Review at 3-5 days
- >3+ cells : Review at 1-2 days

- If elevated IOP, may need to follow up sooner than suggested.
- Consider referral to Uveitis service if: recurrent, severe, bilateral disease, granulomatous uveitis, or systemic symptoms.
- Patients under the age of 45 with a history of back pain for more than 3 months, or a history of joint pains requiring assessment by their GP, should be referred to OPD for HLAB27 testing.