Pediatric Uveitis Handout

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Initial Laboratory Testing

**Basic Labs**
- CBC
- BMP
- ESR
- ANA
- HLA-B27
- ACE level
- Lysozyme
- CXR
- Urinalysis

**As directed by exam**
- FTA/RPR/VDRL
- Quantiferon Gold
- CMV
- HSV – 1 and 2
- Lyme (with travel hx)
- Toxocara
- Toxoplasmosis

What is Causing It?

- Anterior Segment exam findings helpful in identifying underlying cause:
  - Elevated IOP on presentation – HSV, CMV, VZV
  - Granulomatous KP or iris nodules – Sarcoid/Blau
  - Diffuse stellate KP – HSV, CMV
  - Sectoral iris atrophy – HSV
  - Scleritis/Episceritis – Polyangiitis
  - Keratouveitis/endothelitis – HSV
  - Bilateral, acute - TINU

Chronic Anterior Uveitis

Severe initial disease
Worsening disease
Posterior involvement

Rule out:
- All diagnoses
- Non-adherence

MTX initiated
15 mg/m²/week sc

No Improvement
> 2.3 flares

Improved
Still > 0.5+

Resolved
< 0.5+
cell

MTX + IFX or ADA (consider > 10 mg/kg IFX)

MTX initiated
3 months

No Improvement
Worsening

IFX or ADA + MTX

MTX or IFX or ADA

Taper PF & observe closely

MTX + IFX or ADA (consider > 10 mg/kg IFX)

Initial Biologic Failure or Disease Recurrence After Initial Control

IFX or ADA + MTX

No improvement
Worsening

Improvement, but Flare if ≤ 3 drops PF 1%/day

Weight adjust for growth
Measure drug trough level
Measure drug antibody

Low drug levels
Antibodies present

Controlled
< 0.5+ cell on ≤ 3 drops PF 1%/day

No Improvement
Worsening

No Improvement
Worsening

MTX initiated

New drug

No improvement
Worsening

Trial of increased dose IFX Weekly ADA

Change to another TNF-alpha inhibitor*

Normal levels
No antibodies

*Golimumab could also be considered after IFX or ADA failure
Stepladder Algorithmic Approach to Uveitis Treatment

1. +/- Topical corticosteroids
   +/− Periocular steroids
   +/- Systemic steroids (< 3 months)

2. Conventional IMT:
   Methotrexate (MTX) – preferred
   Other: Cyclosporine, Leflunomide, Mycophenolate

3. Biologic Response Modifiers
   (Biosimilars)

Screening Guidelines

Juvenile rheumatoid arthritis
Juvenile idiopathic arthritis

Use of IOL Should be Made on Case by Case Basis

- Relative contraindication for IOL
- Patients less than 4 years old
- Pre-surgical hypotony
- IOL complications in fellow eye
- Shallow AC

IOP in the Inflamed Eye

IOP in Corticosteroid Treated Eye

* Steroid response may be earlier for STK or difluprednate
Ocular Hypertension Pearls:
Do not rob Peter to pay Paul

• Taper steroids only if disease is quiet
• Treat ocular hypertension with step-wise addition the following:
  • Timolol
  • Topical CAIs
  • Iopidine (3-8 years)
  • Brimonidine (>8 years - some panel members use at younger age)
  • Prostaglandin analog (used by part of panel – SD/ES)
  • Acetazolamide
• Persistent OHT and inability to taper ocular steroids are indications for more aggressive systemic immunomodulatory therapy