Adamantiades-Behçet's Disease

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Overview

- Definition
  - A chronic, relapsing inflammatory disorder of unknown etiology with classic triad findings
    - Recurrent oral and genital aphthous ulcers
    - Ocular inflammation
    - Skin lesions
  - International criteria:
    - Behçet's Research Committee of Japan
      - Complete, incomplete, suspect, possible
    - International Study Group for Behçet's Disease Criteria
      - Oral ulcers +2 of: genital ulcers, eye lesions, skins lesions, pathergy test
  - Frequently involves CNS and GI tract as well
  - Ocular inflammation in 67–95%
    - Anterior uveitis
    - Devastating retinal vasculitis
- Symptoms
  - Blurring
  - Scotomas
  - Redness
  - Periorbital pain
  - Photophobia
  - Tearing with rare ocular discharge
  - Diplopia (with neurologic involvement)
- Laterality
  - Unilateral progressing to bilateral, 80%

C. S. Foster et al. (eds.), *Uveitis*, https://doi.org/10.1007/978-3-030-52974-1_7

- Course
  - Recurrent inflammation, not typically chronic
  - Ocular flares are often severe
- Age of onset
  - 25–35 years worldwide (range 2 months to 72 years)
- Gender/race
  - Historically M > F, may be more even distribution
  - Most common in Eastern Mediterranean and East Asian
- Systemic association
  - Systemic vasculitis
  - Oral and/or genital aphthous ulcers
  - Various mild to severe organ involvement including skin, heart, CNS, GI, lungs, GU, joints

Exam: Ocular

Anterior Segment

- Acute anterior uveitis (AU):
  - Non-granulomatous
  - May progress to "shifting" hypopyon if untreated, 19–31%
- More common:
  - Cataract
  - Posterior synechiae
  - Peripheral anterior synechiae
  - Iris atrophy
- Less common:
  - Scleritis
  - Episcleritis
  - Filamentary keratitis
  - Neovascularization of iris
    - From posterior inflammation
    - Poor prognostic sign

Posterior Segment

- Posterior or panuveitis
  - Vitritis with acute inflammation
- Retinal and/or vitreous hemorrhage
- Venous and capillary dilatation
- Obliterative necrotizing retinal vasculitis (RV)
  - May involve arteries and veins simultaneously (also capillaries)
  - Ghost vessels, "silver-wired" vessels

  - CRVO or BRVO
  - CRAO or BRAO
  - NVE, NVD
- CME
- Chorioretinal scarring
- Retinal tears and detachment
- Papillitis, later progressive optic atrophy
- Neovascular glaucoma

Exam: Systemic

- Oral aphthous ulcers, required for diagnosis
- Skin
  - Erythema nodosum
  - Hyperpigmented/hypopigmented scarring
  - Pathergy (40%)
  - Acne vulgaris or folliculitis, on thorax or face
- Vasculitis (8–38%)
  - Any vessels (arteries, veins, capillaries), any size
  - Superficial thrombophlebitis, upper or lower extremities
- Neurologic (3–10%, neurologic or vascular in origin)
  - Cranial nerve palsies (CN VI, CN VII, transient)
  - Papillitis, papilledema
  - Audiovestibular dysfunction
  - Venous sinus thromboses, intracranial hypertension
  - Pyramidal brainstem lesions
  - Seizures
  - Psychiatric disorders
- Genitourinary
  - Ulcers
  - Epididymitis
  - Glomerulonephritis
  - IgA nephropathy
  - Amyloidosis
  - Renal vein thrombosis
- Gastrointestinal
  - Diarrhea
  - Hemorrhages
  - Ulcers in esophagus, stomach, intestine; may perforate
- Pulmonary (18%)
  - Hemoptysis, dyspnea, chest pain, fever, cough
  - Vascular lesions, pulmonary emboli
  - Aneurysmal bronchial fistula

- Musculoskeletal
  - Arthritis – knee, sacroiliitis, ankylosing spondylitis, non-migrating

Imaging

- OCT: CME, CNV, macular atrophy (after vascular insult)
- FA: CME, retinal vasculitis (may see arteritis, phlebitis, and/or capillaritis), papillitis, vascular occlusion/delay, neovascularization, chorioretinitis
  - Diffuse dye leakage may be seen after inflammation subsides
- ICG: hypocyanescent choroidal lesions
- ERG: decreases in overall standard and pattern ERG

Laboratory and Radiographic Testing

- No definitive serologic or laboratory testing
- May be elevated acute phase reactant proteins: ESR, CRP, complement
- HLA-B51 association (not diagnostic)
- Elevated soluble CD25 may precede recurrence

Differential Diagnosis

- HLA-B27 associated uveitis
  - Reactive arthritis
- Sarcoidosis
- Systemic lupus erythematosus
- ANCA vasculitides
- Viral retinitis

Treatment

- Acute AU: frequent topical corticosteroid +/− cycloplegia
  - Q1h steroid and atropine 1% BID with hypopyon
- Severe AU or posterior involvement
  - Requires aggressive and urgent therapy
  - Systemic corticosteroids, oral or intravenous (or both)
  - Initiation of immunomodulatory therapy
    - May coordinate with other specialists
- Immunomodulatory therapy
  - Antimetabolites
    - Azathioprine or mycophenolate

  - Calcineurin inhibitors
    Cyclosporine may supplement antimetabolite therapy
  - Biologics (especially with RV)
    TNFα inhibitors – adalimumab, infliximab
    CD20 inhibition – rituximab
    Anti-IL1β – anakinra, canakinumab (used in some cases)
  - Alkylating agents
    Chlorambucil or cyclophosphamide
- Other therapeutic measures
  - Colchicine
  - Plasmapheresis
  - Interferon α-2a
  - Dapsone
  - Pendoxyphilline
  - Penicillin
  - Thalidomide

Referral/Co-management

- Rheumatology
- Cardiology
- Neurology
- Dermatology
- ENT
- Gastroenterology
- Urology
- Pulmonology