Pigment Dispersion Syndrome

- **Case Description**
  - young myopic man with no ocular complaints
- **Image Description**
  -
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  - mid-peripheral iris transillumination defects (in both eyes)
- **Differential Diagnosis**
  - pigment dispersion syndrome/glaucoma
  - trauma/surgery
    - iris chafe with sulcus IOL
    - accidental or surgical trauma to iris
    - siderosis
  - HSV/VZV uveitis
  - PXF
    - iris TIDs are near the pupillary margin
  - albinism
    - Waardenburg syndrome
      - Partial albinism
      - White forelock
      - Deafness
      - Dystopia canthorum
      - Iris hypochromia
        - pale blue eyes
        - heterochromia irides
  - radiation
- **Data acquistion**
  - History
    - blurred vision, halos, eye pain after exercise or pupil dilation
    - refractive error
      - myopia
    - trauma/surgery
    - herpes infection
  - Physical Exam
    - IOP
    - slit lamp
      - Krukenberg spindle

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      - pigment on lens capsule

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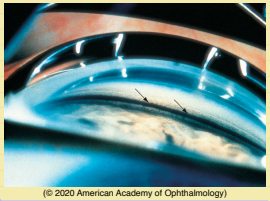
      - pigment on lens zonules
      - PXF material
    - gonioscopy
      - TM pigmentation
        
        (© 2020 American Academy of Ophthalmology)
    - funduscopy
      - glaucomatous optic nerve damage
      - ☆ lattice degeneration
      - ☆ retinal detachment
    - ☆ examine other eye
- **Additional Testing**
  - visual field exam
- **Assessment**
  - PDS/PDG
- **Treatment**
  - Medical
    - argon laser trabeculoplasty
    - selective laser trabeculoplasty
      - greater risk of post-laser IOP spikes ☆
        - lower energy should be used
        - only 180 degrees of treatment is advised initially
    - IOP lowering medication
    - miotic agents
      - reduce iris-zonule contact
      - cause fluctuating myopia
  - Surgical
    - laser PI
      - for early disease
      - controversial
    - guarded filtering surgery
    - tube shunt
      - higher risk of hypotony
        - avoid early overinfiltration
- **Patient Education**
  - General
    - explain pathophysiology
  - Course
    - with age, the signs and symptoms of pigment dispersion may decrease
  - Complications
    - PDG
      - risk of glaucoma is ≈25%–50%
    - RD
      - review RD symptoms ☆
    - myopia
  - Follow-up
    - IOP
    - as a glaucoma suspect
      - optic nerve appearance
      - VF

Ophthalmology Mind Maps/Arman Mashayekhi, MD