Morning Report

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09/01/10
Preceptor- Dr. Pantcheva
Case Presentation

- **CC:** Right eye pain and headache
- **HPI:** 52 yo Caucasian male
  - Presents to ED with OD pain/redness, decreased vision, headache x 1 day
  - IOP measured at 60 mmHg--> was given Trusopt, Timolol, Alphagan, PO Diamox, and IV Mannitol (en route)
  - Transferred for further care
History

• POHx: Congenital Cataracts; OD- aphakic, s/p Baerveldt valve (approx. 10 yrs ago); OS-prosthetic
• PMHx: HTN, Aortic Stenosis, IDDM x 18 yrs, HLP, obesity
• Meds: Insulin, Lisinopril, Simvastatin, Gemfibrozil, Naproxen, Travatan Z OD
• Allergies: NKDA
• FHx: CAD, HTN, DM, HLP
• Social Hx: Denies tobacco/alcohol/drugs
Last exam before this episode

- Vacc: OD 20/25-2 (prosthetic OS)
- Pupil: pharm dilated OD
- Ta: 13 mmHg
- EOM: Full
- SLE:
  - L/L: WNL OD
  - C/S: large bleb ST, well covered GDD OD
  - K: clear OD
  - A/C: deep and quiet, no visible tube in AC/angle OD
  - Iris: patent LPI OD
  - Lens: aphakic OD
  - ONH: 0.7 OD
  - Macula/Vessels: normal OD
Differential Diagnosis

• Neovascular Glaucoma
• Late tube failure
• GDD occlusion
• Uveitic Glaucoma
ED Exam

- Vacc: CF @1’ OD
- Pupil: irregular/peaked, reactive
- Ta: 56 mmHg OD
- SLE: see photo
Intervention

• Impression: Iris occlusion of sulcus Baerveldt tube
• Plan:
  – Pilocarpine 1% - iris not released from tube
  – YAG laser iridotomy of iris - iris released
  – IOP decreased to 10 mmHg
  – Vacc improved to 20/20
  – sent home with Pred Forte QID and Pilocarpine TID
  – Va and IOP stable 1 wk s/p laser iridotomy
  – Pilocarpine indefinitely
Glaucoma Drainage Devices

- Aid filtration by shunting aqueous to subconjunctival space
- Tube placed into AC, sulcus, or vitreous through pars plana --> aqueous flows through device to extraocular reservoir
- Nonvalved (Molteno and Baerveldt) or Valved (Ahmed)
Glaucoma Drainage Devices

• Indications:
  – Failed trabeculectomy w/antifibrotics
  – Active uveitis
  – Neovascular glaucoma
  – Inadequate conjunctiva
  – Aphakia
Use of ultrasound biomicroscopy to diagnose Ahmed valve obstruction by iris

Monica M. Carrillo,*† MD; Graham E. Trope,*† MB, PhD, FRCSC; Charles Pavlin,†‡ MD, FRCSC; Yvonne M. Buys,*† MD, FRCSC

- Case 1
  - 27 yo male with Axenfeld-Reiger syndrome
  - Bilateral failed filtration surgeries
  - Ahmed valve placed in AC OS
  - IOP increased post-op
  - Poor view 2/2 bullous keratopathy
  - UBM showed iris occlusion of tube
  - Laser iridotomy --> IOP decreased to 22 mmHg

- Case 2
  - 71 yo monocular female with Juvenile glaucoma
  - Maximal tolerated therapy OD
  - Ahmed valve placed in sulcus
  - IOP increased post-op
  - Poor view 2/2 failed PKP
  - Transsceral CPC --> IOP decreased to 10 mmHg
  - UBM showed iris occlusion of tube
  - 4 months later- repeat PKP and iridectomy
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Baerveldt Glaucoma Implant in the Ciliary Sulcus Midterm Follow-up

Tiago Santos Prata, MD,* Anish Mehta, BA,* Carlos Gustavo V. De Moraes, MD,* Celso Tello, MD,* Jeffrey Liebmann, MD,* and Robert Ritch, MD*

- Retrospective, noncomparative, interventional case series
- 17 eyes of 17 patients with sulcus Baerveldt tube
- Pseudophakic (16/17) or CE done at time of tube placement (1/17)
- Technique- tube bevel up with 1/2 of bevel-up sector within pupil
- Collected data on:
  - Pre- and post-op IOP
  - # of antiglaucoma medications
  - Best-corrected visual acuity
  - Surgical complications
  - Any subsequent events or procedures
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• Results:
  – Significant decrease in IOP and number of medications
  – No difference in best-corrected VA
  – Complications:
    • iris occlusion of tube (1 patient) --> managed with chronic mydriasis
    • chronic hypotony (1 patient)
    • No evidence of cleft, iridodialysis, ciliary body detachment, tube rubbing against posterior surface of iris
Ab Interno Sulcus Placement of Glaucoma Tube Implants
Larissa Camejo, M.D., Robert Noecker, M.D., M.B.A

• Describes modified technique for sulcus placement of glaucoma silicone tubes in pseudophakia/aphakia pts
• Technique:
  – Tube trimmed longer (4 mm anterior to limbus)
  – Bevel of tube faces down and away from iris
    • “Beveling the tube down allows for the open and tapered tip of the tube to be away from the iris, avoiding pigment dispersion or tube occlusion with the iris”
  – Healon GV injected into sulcus
  – 23G needle sclerotomy created by passing needle posterior to iris
  – Tube inserted into sclerotomy
  – AC cannula can confirm free positioning of tube’s tip in sulcus
References


