Vitrectomy Surgery

David G. Miller, MD
Retina Associates of Cleveland
Indications for Vitreous Surgery

- Diabetic Retinopathy
- Macular Degeneration
- Retinal Detachment
- Macular Hole
- Macular Pucker
- Vitreous Opacity
- Vitreous Infection
Risks of Vitrectomy

- Infection/Endophthalmitis
- Retinal Tear
- Retinal Detachment
- Choroidal Effusion or Hemorrhage
- Cataract
- Glaucoma (after gas tamponade or VH removal)
- Anesthesia Block Related
Essentials of Vitrectomy

- Pre-op Evaluation
- Adequate Anesthesia
- Sterile Prep and Technique
- Surgical Assistant
- Proper Sclerotomy/ Wound Placement
- Intraocular Visualization
- Control Any Intraocular Bleeding
- Tight Wound Closure
- Post op Evaluation
Pars plicata

Pars plana

2.5 mm

3.5 mm
Safety Techniques

• Confirm Intraocular Placement of Infusion
• Maintain Intraocular Spatial Orientation
• Control Intraocular Pressure (too high/too low)
• Avoid Iatrogenic Trauma (Tears/Cataracts)
• Check Wound Integrity
• Visualize Periphery at Conclusion of Every Case
  – Scleral Depressed Exam
• Post-op Instructions with Contact Information
Patient 1

- 80 y/o F
- C/o occasional blurry VA OD at distance x yrs
- VA OD 20/160
- Dx ERM
Review Question

• What is a possible risk to vitrectomy surgery?
  – Endophthalmitis
  – Retinal Detachment
  – Cataract
  – Choroidal Hemorrhage
  – All of the above
Review Question

• What are the best locations for the working sclerotomies in vitrectomy?
  – 3 and 9 o’clock, 3 mm posterior to limbus
  – 10 and 2 o’clock, 5 mm posterior to limbus
  – 11 and 1 o’clock, 3 mm posterior to limbus
  – 12 and 6 o’clock, 5 mm posterior to limbus
Review Question

• What is the best way to prevent post op retinal detachment?
  – Use wide field viewing device
  – Ophthalmoscopy with Scleral depression at end of every case
  – Low aspiration/ vacuum during vitrectomy
  – Avoid the vitreous base with cutter
End

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