Rush University/Illinois Retina Associates Vitreoretinal Surgery Fellowship

Goals of the Fellowship

Medical Retina Diagnosis and Therapy

Fellows will be expected to become proficient in the following:

Clinical Skills:

Indirect ophthalmoscopy Scleral depression Fundus contact lenses 78D and 90D Slit lamp examination

Diagnostic Tools:

Angiography: Fluorescein and ICG Digital and film based Ultrasonography: Dynamic B scan Exposure to 3D U/S OCT ERG CT/MRI Visual Fields

Diabetic Retinopathy

Classification Mild-Moderate SNPDR vs. VSNPDR Screening strategies Telemedicine Diabetic macular edema Focal vs. Diffuse Management: Laser focal vs. grid Laser techniques Emerging therapies Periocular and intraocular steroids Vitrectomy Systemic medical therapy **Proliferative Diabetic Retinopathy** Management: PRP laser techniques Use of various lenses Rodenstock Goldmann 3 mirror Super Ouad 160

LIO

Age Related Macular Degeneration

Dry

High risk features Laser for drusen; CNVPT, CAPT Multivitamin usage: AREDS Exudative Angiographic classification Classic vs. type 1 or 2 Occult CNVM ICG features Management >50% classic: Visudyne therapy Minimally Classic and Pure Occult VIM/VIO TTT Intravitreal steroids Radiation, Rheotherapy, etc.

Retinal Vascular Occlusive Disease

Branch Retinal Vein Occlusion BVOS Laser techniques Emerging therapies Central Retinal Vein Occlusion Medical evaluation and work-up CVOS Laser treatment Emerging therapies Arterial occlusion Medical evaluation and work-up Treatment

Peripheral Retina Disease

Diagnostic skills: Indirect ophthalmoscopy with scleral depression Contact lens evaluation peripheral retina Goldman 3 mirror lens Super Quad 160 wide field lens Peripheral retinal anomalies Peripheral retinal degenerations Lattice degeneration Paving stone degeneration White with and without pressure Cystic tufts Meridional folds Retinoschisis Retinal breaks

Infectious Retinitis

Diagnostic skills Management Toxoplasmosis Herpetic retinitis Acute retinal necrosis PORN CMV retinitis Histoplasmosis Toxocariasis

Pediatric Retina

Retinopathy of Prematurity Screening programs Classification Management Threshold ROP Indirect laser vs. Cryo Surgical management Stage 4 or 5 ROP RD Toxocariasis Persistent Fetal Vasculature FEVR Norrie's Disease Juvenile Retinoschisis

Surgical Retina Management:

Retinal Detachment Classification: Exudative vs. Tractional vs. Rhegmatogenous Rhegmatogenous RD Localization of retinal breaks Drawing of configuration Surgical decision making Pneumatic retinopexy Scleral buckle Vitrectomy Surgical Skills Pneumatic retinopexy Intraocular gases **Kinetics** Complications Retinopexy Cryopexy Indirect laser Scleral buckle **Options for elements** Encircling vs. Radial Drainage vs. nondrainage Cryopexy Management of complications Vitrectomy 3 port pars plana vitrectomy Vitreous base dissection Air fluid exchange

Endolaser photocoagulation

Complicated Retinal Detachment

Proliferative Vitreoretinopathy Classification Pathophysiology Management: Membrane dissection Use of forceps, pics, scrapers 1- vs. 2-handed dissection Illumination options Wide field viewing Use of Perfluorocarbon liquids Use of Silicone oil

Diabetic Tractional Retina Detachment Management Dissection techniques: En Bloc vs. Segmentation vs. Delamination Viscodissection Automated vs. manual scissors

Macular Surgery

Macular hole surgery Indications ILM removal techniques ICG staining Gas tamponades Positioning regimens Postoperative complications Epiretinal membrane Dissection techniques Complications

Endophthalmitis

Diagnosis Endogenous vs. Postoperative Management EVS study Tap and inject vs. Vitrectomy Antibiotic pharmacology Use of steroids

Management of Lens Complications

Retained lens fragments Dislocated/subluxed IOL Insertion of secondary IOLs ACIOL vs. Sulcus Sutured IOL

Evolving Surgical Techniques

BRVO – sheathotomy CRVO – radial neurotomy ARMD – translocation surgery, displacement of subretinal hemorrhage **Retinal implants**