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Vitreomacular Interface Disease (PS)

1 hour

- I. Review of Retinal and Vitreous Anatomy
 - a. Anatomy of the Vitreous
 - i. Volume: 4 ml
 - b. Histopathology
 - i. Vitreous contents
 1. Water
 2. Hyalocytes, collagen, glycosaminoglycans
 - c. Optical Coherence Tomography (OCT)
 - i. Vitreous most anterior structure bordering Inner Limiting Membrane of retina
- II. Vitreoretinal Interface
 - a. Vitreous points of attachment at retina
 - i. Anterior/Posterior
 - ii. Strength of attachments
 - b. Attachment at posterior lens
- III. Vitreous Aging: 2 Processes
 - a. Synchysis
 - i. Liquefaction
 - b. Syneresis
 - i. Contraction; weakening of the vitreoretinal adhesion
 - c. Utilizing OCT to identify two distinct processes
- IV. Normal Posterior Vitreous Detachment (PVD)
 - a. Definition
 - b. Risk Factors
 - c. Stage of PVD
 - i. Stage 0: No PVD
 - ii. Stage 1: Incomplete PVD in temporal perifovea
 - iii. Stage 2: Incomplete PVD in temporal and nasal perifovea
 - iv. Stage 3: Incomplete PVD over posterior pole
 - v. Stage 4: Complete PVD/ Weiss Ring
- V. Vitreomacular Adhesion
 - a. Definition
 - i. AKA: Stage 1 PVD
 - b. Classification
 - i. Based on Size
 1. Focal <1500 um
 2. Broad >1500 um
 - ii. Presence or absence of other macular disease

1. Isolated: Occurs without other co-existing disease
 2. Concurrent: Occurs alongside other non-related disease
- VI. When Vitreous Doesn't Behave
- a. Vitreomacular Traction
 - i. Definition
 1. Perifoveal adhesion (3mm) with anatomical obscuration
 - a. Classification
 - i. Based on Size
 1. Focal/Broad
 - ii. Presence or absence of other macular disease
 1. Isolated/Concurrent
- b. Full-Thickness Macular Hole
 - i. Classification
 1. Size of Defect
 - a. Correlation with surgical outcome
 - i. Role of vitrectomy and Ocriplasmin
 2. Presence or absence of VMT
 - a. Primary vs Secondary
- c. Epiretinal Membrane
 - i. Definition
 1. Proliferation of glial cells
 - a. Type 1- No obscuration to trajectory of retinal vessels
 - b. Type 2- Anatomical changes to vessel trajectory
 - ii. OCT appearance
 - iii. Relationship to PVD
 - d. Partial Thickness Macular Hole
 - i. Lamellar Hole
 1. Definition and categorization
 - a. Degenerative
 - i. Irregular foveal contour
 - ii. Foveal cavitation with rounded edges
 - iii. Foveal thinning
 - iv. Epiretinal proliferation
 - b. Tractional
 - i. ERM and foveoschisis
 2. Management
 - ii. OCT appearance
 - iii. Etiologies/Associations
 1. VMT resolution, epiretinal membrane, cystoid macular edema, high myopia
 - e. Macular Pseudohole
 - i. Round or oval configuration of foveal depression
 - ii. Perifoveal traction from ERM

VII. Case Examples