I. Case History

- A 6-year-old Hispanic male presents for a routine eye examination with distance vision blur OU without spectacle Rx
- Medical Hx: Attention deficit hyperactivity disorder
- Medications: Adderall 5mg PO QD
- Mother reports patient had ocular trauma at the age of one to his left eye

II. Pertinent findings

- Examination showed a visual acuity of 20/70 in the right eye and 20/60 in the left eye. Slit-lamp biomicroscopy showed normal anterior segments OD, and with mild scarring on the upper lid crease OS.
- The IOP was soft and equal bilaterally by tactile
- Dilated fundus examination showed 0.2 round cup to disc ratios OD, OS with an unremarkable fundus periphery
- Vitreous findings in the right eye were unremarkable. Vitreous in the left eye showed a pigmented brown free floating cyst estimated 2x2mm in the vitreous cavity. No vitritis was seen.
- B-scan revealed a hyperechogenic cyst with no internal reflectivity

III. Differential diagnosis

- Congenital vitreous cyst vs. acquired cyst secondary to trauma or an intraocular pathology.

IV. Diagnosis and discussion

- Vitreous cysts are an uncommon rare finding. Only an average of 50 case studies have been reported. Their pathogenesis is unknown and solely based on two theories.
- Congenital theory proposes these cystic transformations are from the glial remnants of the hyaloidal artery system. Acquired theory suggests these cysts are secondary to the trauma and were generated from the pigmented ciliary epithelium.

V. Treatment, management

- Argon laser photocystotomy has been shown to worsen symptoms in one case study. However, can be considered a less invasive treatment compared to vitrectomy.
- Pars plana vitrectomy in conjunction with Argon laser photocystomy has a much better outcome in reducing symptoms.

VI. Conclusion

- Vitreous cysts can range from 0.15 mm to 12 mm. Can be found in normal eyes and in eyes with ocular abnormalities. Most do not require any treatment. However if a patient is
symptomatic, argon laser photocystotomy in conjunction with vitrectomy is the best option available.