Patient with IOP spike at 1 day post op visit for cataract removal presents at 1 week with complaints of pulsatile changes in brightness and postoperative complication of NAION. Abstract Text:

I. Case History

- 64 year old White Male
- At 1 week post-op for cataract extraction with posterior IOL implantation OD patient complains of pain behind OD. He reports pulsatile brightness described as "iris opening up" OD
- Ocular history
  - Cataract extraction with posterior chamber IOL insertion OD 1 week prior
  - Cataract OS
  - Anatomical Narrow Angles OU noted preoperatively
  - IOP spike 1 Day Post-op to 36, patient started on Cosopt at that time.
- Medical history
  - Meniere’s Disease
  - Mixed hyperlipidemia
  - PTSD
- Medications
  - Cosopt BID OD
  - Pred Forte QID OD
  - Polytrim QID OD
  - Imitrex 100mg

II. Pertinent findings

- Clinical
  - OD 0.30 C/D with indistinct, elevated nasal margins, flame hemorrhage on inferior rim
  - Dilated and tortuous vessels OU
  - ONH OCT: average RNFL thickness OD 156 microns; inferior quad RNFL 265 microns

III. Differential diagnosis

- Non-Arteritic Anterior Ischemic Optic Neuropathy (NAION)
- Arteritic Anterior Ischemic Optic Neuropathy (AION)
- Inflammatory Optic Neuritis
- Compressive Optic Tumor
- Central Retinal Vein Occlusion (CRVO)
- Malignant Hypertension

IV. Diagnosis and discussion
• NAION
  • Unilateral, sudden, painless visual loss
  • Seen in patients younger than 60
  • Inferior altitudinal defect may be seen
  • 6% recurrence
  • Fellow eye affected: 10% after 2 years; 15% after 5 years
  • Rare cataract surgery complication
  • Transient increases of IOP during operative or perioperative periods can cause NAION
  • 3.6x increased risk of NAION following cataract extraction in the fellow eye
  • 53% chance of getting NAION in fellow eye after cataract extraction

V. Treatment, management

• No definite treatment
• Aspirin reduced incidence of second eye involvement after cataract extraction
• A Comparison of Risk Factors for Postoperative and Spontaneous Nonarteritic Anterior Ischemic Optic Neuropathy Mcculley, Timothy J. Journal of Neuro-Ophthalmology
• Risk of non-arteritic anterior ischemic optic neuropathy (NAION) after cataract extraction in the fellow eye of patients with prior unilateral NAION Lam, B. L, H. Jabaly-Habib, N. Al-Sheikh. British Journal of Ophthalmology

VI. Conclusion

• NAION is a rare complication from cataract surgery
• Transient operative or perioperative increase of IOP may be contributing factor
• 3.6x increased risk of NAION in the fellow eye after cataract extraction
• 53% chance of getting NAION in fellow eye after cataract extraction