CSO 201 THE CASE OF THE VERTIGINOUS MIGRAINE ALIA SANTOYO-JOHNSON, O.D. FCSO

HISTORY / CHIEF COMPLAINT

- 18 year old Caucasian male referred from ENT
- Overall Healthy, no reported concussion or other injuries
- No medications
- S/p sphenoid sinus infection treated via strong course of augmentum and medrol.
- Complaints: Vertigo, dizzy and nauseous.
- Chronic headaches rated 8/10 throbbing to stabbing, located all over head.
- Feeling the room was always rocking.
- Difficulty concentrating, sleeping, and being in crowds.
- Feelings of depression, anxiety, and sadness
- **Previous Treatments**: vestibular therapy, vision therapy, physical therapy, Topamax, Mg, and NUCCA therapy.
- I was his 16th opinion over the course of 3 years
- Leaving for college in 3-4 months

VERTIGINOUS MIGRAINE

• Defined by the American Migraine Foundation

 "A vertiginous migraine is a nervous system problem that causes repeated dizziness (or vertigo) in people who have a history of migraine symptoms. Unlike traditional migraines, you may not always have a headache."

 "The vertigo associated with migraine can be shorter than a typical aura or last longer, from a few minutes to 3 days. With vertiginous migraine, the symptoms can occur before, during, or after the onset of head pain. The vertigo symptoms vary widely in those with migraine. The sensation can occur without any outside trigger, and can be experienced either as a feeling of the self-moving, or as if the surroundings are moving. Other times, vertigo symptoms may be triggered by a change in head position or ongoing movement of the head. Sometimes just looking at an object that is actually moving will trigger an attack."

TREATMENT OUTLINE

- ENT Referred to my office
- Initial Exam
- Initial Color Field
- In Office Syntonics x 7 Days
- Home Syntonics 20 minutes x 30 Days
- 8 Weeks of OVT/HVT
- Functional Field and Office Visits 7 day, 20 day and 30 day
- 1 month, 3 month, 6 month, and 12 month Post Syntonic Fields and Office Visit/ VT Re-Evaluation

EXAMINATION 6/1/2018

Visual Assessment: 06/01/18

- Unaided VA: 20/400 O.D. and 20/100 O.S.
- Pupils: PERRL (-)APD. 6mm, 5mm and 4+ AO OD and OS
- EOM: Full range, choppy motion. (Nausea reported with movement)
- Confrontation Fields: FTFC. O.D. and O.S.
- Color Vision: 12/12 O.D., O.S. (color vision made easy)
- Ocular health unremarkable IOP: 14/14 DFE: unremarkable, (-)pallor
- Retinoscopy: -2.00 -0.25 x 015. O.D. and -2.00 O.S.
- Subjective (Distance). O.D. -1.75 -0.50 x 005 VA 20/20
- O.S. -1.50 -0.50 x 180 VA 20/20
- Binocular Balance: O.D. -1.50. VA 20/20
- O.S. -1.25 VA 20/20
- Near VA. 20/20 O.D., O.S., O.U.

INITIAL EXAM (06/01//18)

<u>Binocular Findings</u>

- Distance Vergences. BI x/4/2 BO x/10/6
- Near Vergences. BI X/6/2 BO X/12/6
- Cover Test. Ortho distance. 2XP'. VG Phorias: 2XP (dist). 6XP'
- NPC. X/12/15 (+) OS Out Visual Midline Shift: mild to left
- W4D. 4 dots near, far. Full room illumination and dark
- NRA/PRA. +2.00/-2.50 Stereo: 30" Randot
- Pursuits: 1/1/1/1 Saccades: 1/1/1/1 (NSUCO)(A/A/HM/BM)
- Pursuits and Saccades made him feel dizzy and nauseated
- Prism Walk: Did not tolerate prism
- Did not like occlusion
- Did not like tints

INITIAL FUNCTIONAL FIELD 6/2/18



ASSESSMENT AND PLAN

<u>Assessment</u>

 Convergence Insufficiency, OculoMotor Dysfunction, Visual Midline Shift, and Abnormal Pupils

• <u>Plan</u>

- Syntonic Treatment of Pi Upsilon x 10 minutes/Mu Upsilon x 10 minutes
- 7 in office followed by home unit x 20 consecutive day for 20 minutes
- Success at 20 days, Initiate VT

Patient's Goals

• Resume driving, social life, and return to hockey

20 DAY FOLLOW UP (06/22/18)

Follow up (06/22/18)

- Improvement . 1 HA and 1 day of dizziness since his last visit.
- HA rated 1/10. Improved sleep, happier and more social.
- He was elated that he felt comfortable to return to the ice.

<u>Exam Findings</u>

- VA: 20/20 OD, OS, OU (D/N)
- Vergences (D) BI x/4/2 BO x/6/2. (N): BI X/>45 BO X/>45
- CT. Ortho distance. Near Ortho
- W4D: 4 dots (Distance and near light and dark)
- Phorias. Distance Ortho Near 2XP' Steropsis: 20"
- NPC. TN. Pupil: 5mm (-)AO, OD. 5mm (-)AO, OS
- No Visual Midline Shift noted Saccades: 5/4/4/4 Pursuits: 5/5/5/5
- <u>Plan:</u>
- Continue Syntonics, recheck functional field 2 weeks
- Start VT with Progress Evaluation 1 month





6 MONTH FOLLOW UP

- <u>6 month follow up Exam findings (02/15/19)</u>
- Patient reports no HA
- No dizziness
- Sleeping great
- <u>Exam</u> Findings
- VA: 20/20 O.D., O.S., OU (D/N)
- MRx: -2.00 -0.50 x 180 -1.50 DS
- Vergences (D) BI x/4/2 BO x/6/4 (N): BI X/>45 BO X/>45
- CT. Ortho distance. Ortho near Phoria: Ortho distance/near
- NRA/PRA: +2.00/-2.00
- W4D: 4 dots (D/N) light and dark EOM: FROM (smooth)
- NPC. TN Pupil: PERRL (-) APD 5mm (-) AO O.D. 5mm (-) AO, O.S.
- Stereopsis: 20" No Visual Midline Shift noted
- Saccades: 5/5/5/5 Pursuits: 5/5/5/5
- <u>Plan</u>
- Recheck for yearly exam





POST TREATMENT

Post Treatment Assessment/Outcome:

• The patient and his parents were very pleased with his treatment outcome. He is succeeding in college, his grades are excellent and studying is not an issue for him. He notices an increase in energy and feels much happier in life. He has a nice balance of social life and studies. He reported no more vertigo or dizziness, and 1 migraines over the course of a year. He was very excited to share that he helped the Marquette hockey team go to the college play offs. He recently purchased new car, and is driving. His headaches were initially reported as a 10/10 and daily to "barely noticed" and seldom.

COMPARISON INITIAL, 20 DAY AND 6 MONTH FUNCTIONAL FIELDS



Initial Field

20 Day Field

6 Month Field