# **Ophthalmic Hospitalist Interest Group Newsletter**

March 2020, Volume 2

## **ANNOUNCEMENTS**

- 1. We currently have 25 members and continue to grow! This email includes the latest updated member roster.
- 2. AAO 2020 we are working with the AAO to set up a group event at the next annual meeting. More details to come. Hope to see you there!
- 3. Group Brain Power! We have a wonderful diverse group of ophthalmic hospitalists and institutions. We welcome everyone to send questions, cases, or comments to the group over email at any time. Exchange is great! We are excited to learn from one another. ©

## **ARTICLES**

- 1. <u>Shaken Baby Syndrome</u> Ophthalmology, July 2000 NAT is a sad but important part of doing ophthalmology consults for a pediatric hospital. This article provides a nice review of clinical findings of NAT and how they might correlate with neurologic outcome.
- 2. <u>Abusive Head Trauma/Shaken Baby Syndrome</u> AAO, March 2015 A helpful NAT review with recommended guidelines published by the Academy.
- 3. <u>Characteristics of Open Globe Injuries in the United States from 2006-2014</u> JAMA Ophthalmology, January 2020 Hot of the press! For those who manage ocular trauma consults, this article provides a nice update for open globe injuries presenting to an ER setting.
- \* PDF copies of all the above articles are attached to the email.

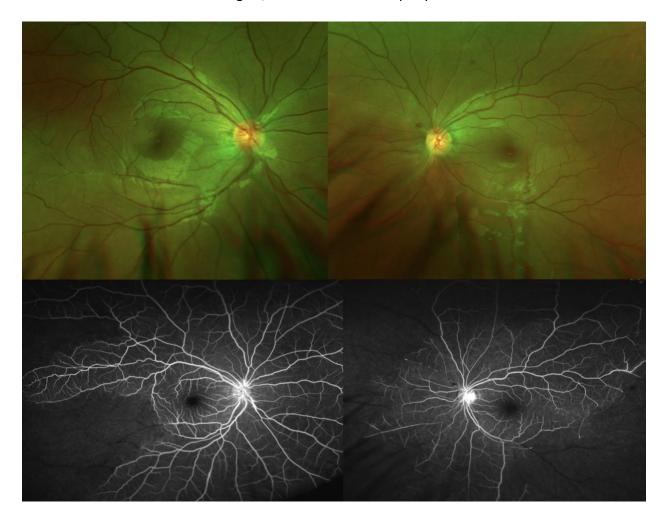
## **CONSULT ROUNDS**

You are consulted about an 18-year-old Hispanic female with a 1 month history of headache, nausea, confusion, slurred speech, difficulty walking, hearing loss, and vision changes. She recently spent time in Mexico before returning to the US and developing these symptoms. The patient is a limited historian but endorses recent bilateral blurry vision with "eye pain". She has no previous significant ocular history.

MRI brain imaging is notable for signs of encephalitis with leptomeningeal enhancement of the cerebellum and inferior brainstem. There are also "snowball lesions" within the corpus callosum. She underwent an LP with normal opening pressure and pending CSF studies. A hearing test confirms profound bilateral hearing loss. An extensive infectious and inflammatory work up is in process.

Her visual acuity is 20/20 in both eyes. No APD. Her funduscopic exam shows subtle areas of retinal vascular attenuation and vascular sheathing. There are a small number of scattered retinal hemorrhages.

FA is notable for marked areas of mid-peripheral non-perfusion and capillary drop out along with focal areas of vascular leakage c/w a severe bilateral peripheral occlusive retinal vasculitis.



Based on her overall clinical picture and imaging findings, a diagnosis of Susac Syndrome was considered the most likely. The patient was treated with a 5-day course of systemic IV steroid and IVIg. Her cognitive symptoms improved while her vision remained stable. She currently is on Azathioprine for ongoing immunosuppression. She now uses cochlear implants.

#### **Key Points:**

Susac Syndrome is a rare condition characterized by a clinical triad of encephalopathy, hearing loss, and branch retinal artery occlusion, although all three findings are not always present on initial presentation. It typically affects females between the ages of 16-40. The exact cause remains unknown but it is thought to represent an auto-immune endotheliopathy resulting in microinfarcts in the brain, inner ear, and retina. MRI imaging of the brain can show a characteristic "snowball" lesions in the corpus collosum. Treatment consists of high dose steroid and immunosuppressive therapies.

This case represents a nice example of how ophthalmology consults are an important part of multidisciplinary care and can aid in the diagnosis of interesting systemic conditions. How cool!

For more information about Susac's, feel free to refer to the email PDF attachment.

\* **Special Note:** These cases may feature an actual clinical photo or radiographic imaging. We request that these cases remain internal to the OHIG emailing list. Please do not forward these cases outside of the group. Thank you, we appreciate your understanding.

# **PEARLS**

#### 1. EHR Dilation Alert

The Dilemma of Dilation - Dilated eye exams are common practice for ophthalmology consults. Many of our patients are admitted to the ICU setting where frequent pupil exams are conducted. Communication regarding pharmacologic dilation is critical but challenging when you have ongoing transitions of care among multiple hospital divisions.

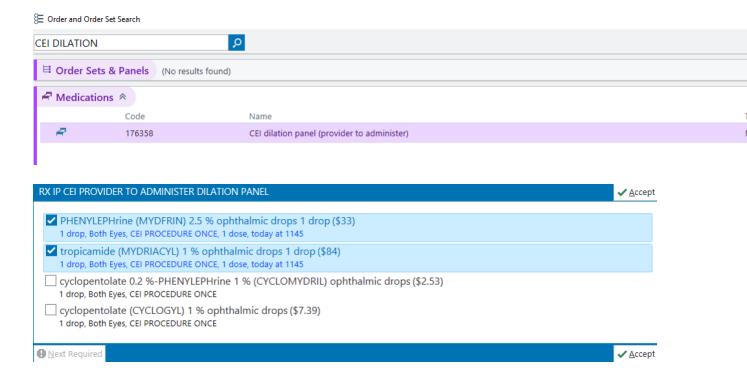
In unfortunate scenarios patients may get a stat head CT for fixed dilated pupils if communication breakdown occurs. How can we help prevent this?

For those who use EHR, you might consider using an electronic "dilation alert" which can notify all providers of pharmacologic dilation in a consistent and reliable manner.

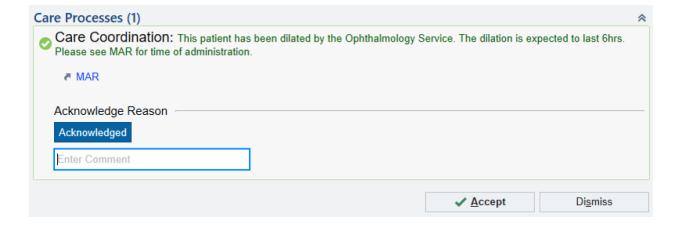
It also has the benefit of communicating the hours of anticipated dilation duration.

Here is a sample of what can be used:

1) Ophthalmology places a "dilation panel" order at the time of the consult exam. One can specifically select medications being used which will determine the alert duration (4-6 hours for phenylephrine and tropicamide, 24 hours for cyclopentolate, cyclomydril).



2) Once the order is placed, an alert will pop up for any provider who opens the patient's chart and must be acknowledged.



3) The dilation medications are automatically entered into the patient's inpatient medication record including the date/time of administration which is helpful for future reference.

Medications	
acetaminophen (TYLENOL) tablet 500 mg	500 mg, feeding tube, EVERY 6 HOURS, First dose (after last modification) on Sat 2/15/20 at 1000, Until Discontinued
cefTRIAXone (ROCEPHIN) injection 2 g	2 g, intravenous, EVERY 24 HOURS, 5 doses, First dose on Fri 2/21/20 at 1800, Last dose on Tue 2/25/20 at 1800
chlorhexidine (PERIDEX) mouthwash 15 mL	15 mL, oral, EVERY 6 HOURS, First dose on Tue 2/11/20 at 0400, Until Discontinued
enoxaparin (LOVENOX) injection 40 mg	40 mg, subcutaneous, EVERY EVENING, First dose on Mon 2/17/20 at 2100, Until Discontinued
furosemide (LASIX) injection 40 mg	40 mg, intravenous, ONCE, 1 dose, Mon 2/24/20 at 1130
guar gum (BENEFIBER) oral powder 1 packet	1 packet, feeding tube, DAILY, First dose (after last modification) on Mon 2/24/20 at 0900, Until Discontinued
levETIRAcetam (KEPPRA) tablet 1,000 mg	1,000 mg, feeding tube, TWICE DAILY, 6 doses, First dose on Sun 2/23/20 at 0900, Last dose on Tue 2/25/20 at 2100
metOLazone (ZAROXOLYN) tablet 5 mg	5 mg, feeding tube, ONCE, 1 dose, Mon 2/24/20 at 1130
oxyCODONE (immediate release) (ROXICODONE) tablet 5-15 mg	5-15 mg, feeding tube, EVERY 4 HOURS AS NEEDED, Starting Mon 2/17/20 at 0840, Until Discontinued, moderate pain
PHENYLEPHrine (MYDFRIN) 2.5 % ophthalmic drops 1 drop	1 drop, Both Eyes, CEI PROCEDURE ONCE, 1 dose, Mon 2/24/20 at 1100
probiotic kefir (NANCY'S KEFIR)	feeding tube, THREE TIMES DAILY, First dose (after last modification) on Sat 2/15/20 at 0900, Until Discontinued
propranoloL (INDERAL) tablet 40 mg	40 mg, feeding tube, THREE TIMES DAILY, First dose (after last modification) on Sun 2/23/20 at 1600, Until Discontinued
tropicamide (MYDRIACYL) 1 % ophthalmic drops 1 drop	1 drop, Both Eyes, CEI PROCEDURE ONCE, 1 dose, Mon 2/24/20 at 1100

Overall, we have found this electronic alert very helpful with positive feedback from other services within the hospital.

Hope this helps for those who wish to try it at their institution! Feel free to email Donna (kimd@ohsu.edu) with questions.