AN UNUSUAL CASE OF HEADACHES, BLURRED VISION AND DIPLOPIA

Saloni Goyal DO, Kourtney Rudzinski DO, Philip Dunn DO

Lehigh Valley Health Network, Allentown, Pennsylvania

Introduction

- Tolosa-Hunt Syndrome is a rare disorder with an estimated annual incidence of one case per million per year.
- It is characterized by painful, one-sided periorbital headaches associated with palsy of the third, fourth, or sixth cranial nerve.
- We present a case of Tolosa Hunt Syndrome in a young female complicated by multiple relapses with steroid therapy.

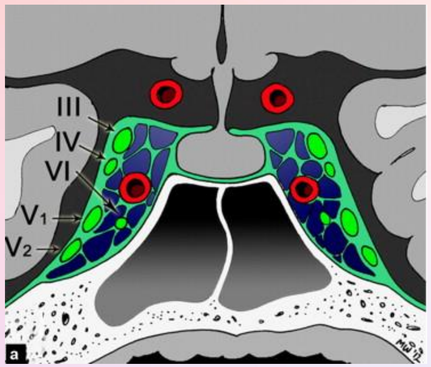

Figure 1: Cavernous sinus anatomy

Case Presentation

- 35-year-old female with past medical history significant for hypertension, and anemia presented with intractable headache, diplopia, and right eye pain.
- She underwent a lumbar puncture with normal opening pressures ruling out Idiopathic Intracranial Hypertension.
- She was then seen by ophthalmology and diagnosed with suspected Tolosa-Hunt syndrome.
- Patient received multiple courses of steroids with improvement of symptoms and resolution of diplopia.
- However, after stopping steroids, she experienced recurrence of daily headaches.
- She was seen by infectious disease and treated for Lyme.
- Due to concern for aneurysm or dissection, CTA was obtained. Findings were concerning for cerebral vasculitis due to diffuse narrowing of the M2 branch of left MCA. MRI brain showed enhancement and thickening of right cavernous sinus and parasellar dura.
- Vasculitis was ruled out as patient did not have symptoms or serologies consistent with imaging.
- Additional lumbar punctures were negative for infectious etiology and lymphoma/leukemia panel.
- Since imaging and history were consistent with Tolosa Hunt syndrome, immunosuppressive treatment was started with a slow steroid taper.
- Repeat imaging demonstrated significant improvement in inflammation with steroids.

Conclusion

- Tolosa Hunt syndrome is an idiopathic disorder and believed to arise from non-specific inflammation in cavernous sinus or superior orbital fissure.
- Extensive workup is recommended to rule out other possible etiologies as it is considered a diagnosis of exclusion.
- In our case, the patient's progressive symptoms with cranial nerve deficits and enhancement of right cavernous sinus on imaging and resolution of CN VI palsy and Horner's with steroids were supportive of the diagnosis.
- It is essential practitioners include Tolosa- Hunt in the differential for periorbital headaches with ophthalmoplegia to avoid potential permanent neurological deficits.

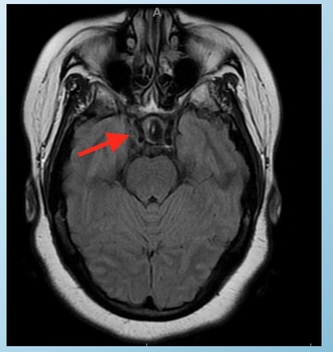

Figure 2 **:** CT head demonstrates abnormal thickening of right cavernous sinus

REFERENCES

1. Amrutkar, C., & Burton, E. V. (2020, August 10). Retrieved March 7, 2021, from https://www.ncbi.nlm.nih.gov/books/NBK459225/#_article-30240_s2_.
2. Amrutkar C, Burton EV. Tolosa-Hunt Syndrome. [Updated 2020 Aug 10]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan
3. Case of Tolosa-Hunt Syndrome in a Young Male. *J Investig Med High Impact Case Rep*. 2017;5(1):2324709616689478. Published 2017 Jan 1. doi:10.1177/2324709616689478

LVHN.org

Lehigh Valley Health Network