



**ORIGINAL RESEARCH PAPER**

**General Medicine**

**A RARE CASE OF TOLOSA HUNT SYNDROME**

**KEY WORDS:** Tolosa hunt syndrome, Diplopia, Lateral rectus palsy, headache, Ophthalmoplegia

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**INTRODUCTION**

Tolosa hunt syndrome is an idiopathic, painful ophthalmoplegia caused by nonspecific inflammation of cavernous sinus or superior orbital fissure. However, traumatic injury, tumors or aneurysm may be a potential trigger. The inflammation in the cavernous sinus region has seen are association within cranial inflammation, but systemic inflammation is not yet reported.

**CASE REPORT**

A 26-year-old Male student came with complaints of diplopia and unilateral headache in the right periorbital region for one week. No periorbital swelling and nasal complaints. Patient's past and personal history was non-significant. On examination: patient was conscious coherent with temperature afebrile with pulse rate of 82bpm, SpO2 98% on room air, BP 130/80mmHg, RR 18cpm.

**Systemic Examination;**

CNS: Right lateral rectus palsy. Rest all systemic examination normal ophthalmic examination No fundus abnormality detected.

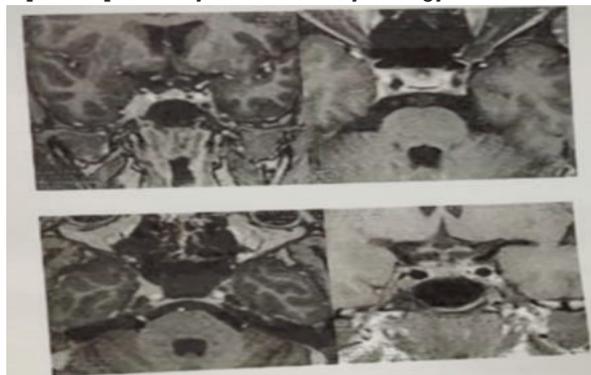
**Investigations**

Hb:14.4g%, TLC:8.4, Platelets :253, Creatinine:1.1, Na+:138meq, K+:3.7meq, Cl-:104meq, HIV,HBSAG,HCV :Non-Reactive , Total bilirubin:0.7, Indirect Bilirubin: 0.4, Direct Bilirubin:0.3, SGOT:17, SGPT:20, Alkaline Phosphatase :77 ,Total Protein : 6.8 Albumin : 4.4, ESR 5, CRP : 2.6, BUN : 14.3 HbA1C : 5.5% , T3 : 63ng/dl, T4 : 12ug/dl, TSH : 2.57uIU/ml, S.ACE:WNL

**CSF Analysis:**

Total protein: 3.4, Glucose: 68, Albumin: <0.4, ADA: 1.5, no cells. CFS AFB/ GeneXpert: AFB not detected. KOH No fungal growth CS: no growth. Cryptococcal Ag negative.

MRI Brain Orbit plain with contrast was s/o Small sized ill-defined isointense mildly enhancing soft tissue along the lateral and inferior wall of right cavernous sinus with associated exaggerated dual enhancement. Findings represent possibility of inflammatory etiology.



**CASE DISCUSSION**

Glucocorticoids have been the recommended treatment for Tolosa-Hunt syndrome since the 1960s. However, there are few data other than case series to determine the most effective dose, route and schedule of administration, or length of glucocorticoid therapy.

Specific glucocorticoid regimens reported for treatment of Tolosa-Hunt syndrome vary, but in general they include initial high-dose glucocorticoids for two to four weeks followed by a gradual tapering dose. The rate of the taper should be guided by clinical symptoms, but persistent magnetic resonance imaging (MRI) findings should not deter dose reductions as long as the findings are regressing.

In this case, before starting oral/IV corticosteroid HRC T thorax and CECT abdomen and pelvis was done to rule out any other foci of infection. Once all other systemic infections were ruled out, we started with Injection MPS 1 gm IV for 5 days f/b Oral steroids in tapering dose Patient's both primary symptoms, Diplopia and unilateral headache, were resolved. Tolosa hunt syndrome is a rare disorder which is less prevalent. Most common cause of it been inflammatory changes in the cavernous sinus, Thickening of Dura of Cavernous sinus which can be well appreciated in MRI scanning.

Treatment of Tolosa hunt syndrome include immunosuppressives such as corticosteroids most often prednisolone or steroid sparing agents such as methotrexate and azathioprine. Prognosis of Tolosa hunt syndrome is good. MRI is a picture of Tolosa Hunt Syndrome where there is thickening of Dura of Cavernous Sinus can be seen.

**REFERENCES**

1. smith JL, taxdal DS. Painful ophthalmoplegia.the tolosa Hunt syndrome. Am J Ophthalmol 1966;61:1466.
2. Kline LB, Hoyt WF. The Tolosa-Hunt syndrome. J Neurol Neurosurg Psychiatry 2001;71:577.
3. Lachanas VA, Karatzias GT, Tsitiridis I, Panaras I, Sandris VG. Tolosa-Hunt syndrome misdiagnosed as sinusitis complication. J Laryngol Otol. 2008 Jan. 122(1):97-9.
4. Kwon, Hyuk Sung et al. "Use of methotrexate in the management of recurrent Tolosa-Hunt syndrome: Two case reports." *Medicine* vol. 99,17 (2020): e19882. doi:10.1097/MD.00000000000019882
5. Harrison's Principles of Internal Medicine, Chapter 441, Trigeminal Neuralgia, Bell's Palsy, and Other Cranial Nerve Disorders, Vanja C. Douglas, Stephen L. Hauser