

# Trochlear Nerve Palsy due to Quadrigeminal Plate Cistern Lipoma



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**Introduction:** Intracranial lipomas account for <0.1% of primary brain lesions. They are most often asymptomatic incidental imaging findings, however have been reported to cause elevated ICP and seizures.

**Description:** We present a case report of a 71 year old male with worsening binocular oblique diplopia since onset 3 years prior, found to have a right trochlear nerve palsy, without preceding head trauma.

**Conclusions:** We report the first described case of a trochlear nerve palsy secondary to a quadrigeminal plate cistern lipoma, as confirmed by MRI imaging.

**Management:** The patient was fitted with a GI 3^ BD prism od and 2^ BU prism os with a 25^ BD Fresnel prism on the nasal portion of the left lens. He is being closely observed with regular MRIs per neurosurgery, and evaluated for possible strabismus surgery given the stability of his measurements.

Figure: (A) Strabismus measurements localizing the EOM deficit to the right SO, and (B) with stability 5mo later, (C) MRI w/o contrast sagittal T1 flair, (D) axial T1, and (E) axial T2 FS images of a midbrain lipomatous lesion at the origin site of CN IV

References:  
 CL Truwit, & AJ Barkovich. (1990). Pathogenesis of intracranial lipoma: An MR study in 42 patients. Am J of Neuroradiol.  
 P Ambrosetto, P Martinelli, A Bacci, & R Daidone. (1985). Lipoma of the quadrigeminal plate cistern. Ital J Neurol Sci.  
 MB Yilmaz, E Egemen, & A Tekiner. (2015). Lipoma of the quadrigeminal cistern: report of 12 cases with clinical and radiological features. Turk Neurosurg.

**A** Method: Alternate cover

	Distance	Near XT' 10	Near +3DS	N Bifocals X(T)' 9
	0 0 +2	RHT 12 XT 2	0 0 0	
RH(T) 10	-tr ○ 0	RHT 18	0 ○ -tr	RHT 20-25
	0 0 -2	RHT 25	0 0 0	

R Tilt RHT 20      L Tilt RH(T)      Nystagmus: None      AHP: Yes: Left head tilt

**B** Method: Alternate cover/ No prism Fixing Eye: Right Correction: sc

	Distance	Near	Near +3DS	N Bifocals RHT' 18
	0 0 +3	RHT 10 XT 5	0 0 0	
RHT 12	-trace ○ 0	RHT 25	0 ○ -trace	RHT 20-25
	0 0 -1	RHT 35	0 0 0	

R Tilt RHT 20      L Tilt RHT 8      AHP: Yes: Left head tilt

