

Chiari-TAC;

A Surgically Cured Symptomatic Trigeminal Autonomic Cephalalgia

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BACKGROUND

Trigeminal autonomic cephalalgia (TAC) encompasses four primary headache disorders according to the International Classification of Headache Disorders 3 β (ICHD3 β)¹. Rarely, TAC headaches may occur secondary to structural pathology. We describe a patient with TAC headache as the initial manifestation of Type 1 Chiari malformation, which resolved after decompressive surgery.



Figure 1- Left- sided partial ptosis and conjunctival suffusion

Figure 1

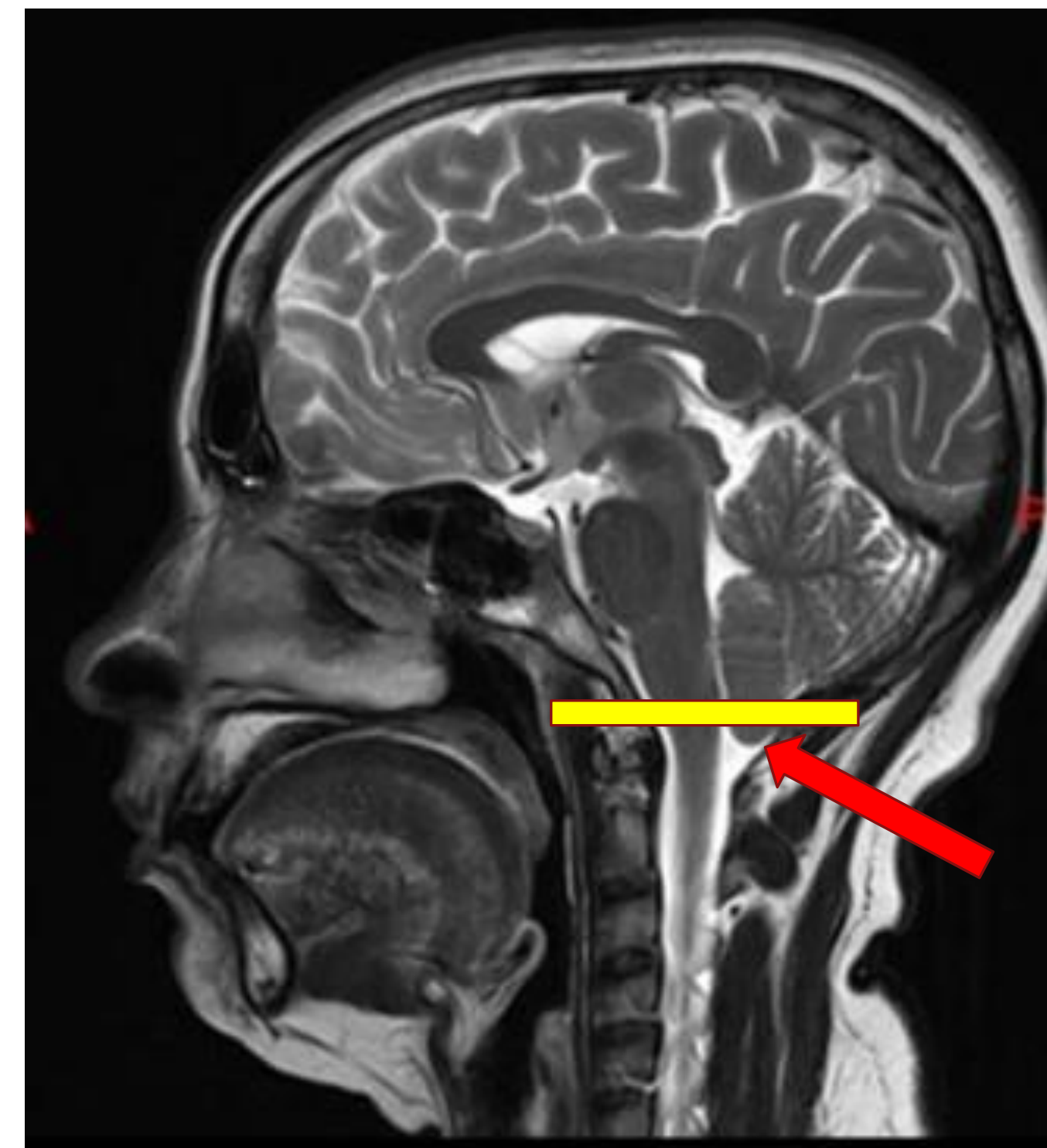


Figure 2- Sagittal T2 MRI showing 6 mm tonsillar descent

Figure 2

CASE PRESENTATION

A 36-year-old female presented with a one-month history of worsening headache. Headache frequency was 4- 5 times per week. She described a severe, left side locked headache with associated redness and tearing of the ipsilateral eye. She also complained of numbness of the ipsilateral face and weakness of the body. Duration of the headache was unusual, lasting between 4-6 hours and occurring 2- 3 times per day. She denied any increase in headache with the Valsalva maneuver. Examination revealed left- sided partial ptosis and conjunctival suffusion (figure 1). However, there was no pupillary involvement. She had impaired pain sensation over the ophthalmic and maxillary divisions of the left trigeminal nerve. Fundoscopy was normal and there were no other cranial nerve abnormalities. The Hoover's test uncovered that her hemiparesis was a functional neurological deficit.

Magnetic resonance imaging (MRI) of the brain revealed a 6mm tonsillar descent, compatible with the diagnosis of Type 1 Chiari malformation (figure 2). She was started on a combination of indomethacin, verapamil, and prednisolone, to which she had suboptimal control of headaches. A neurosurgical input was obtained, after which she underwent successful cranio-vertebral decompression. She remains headache free at 2 months of follow up.

DISCUSSION

All patients with trigeminal autonomic cephalalgia should undergo MRI as symptomatic TAC headaches may be indistinguishable from primary headache disorders. However, the presence of atypical features, such as in our patient suggest the former². We wish to highlight that although symptomatic TAC headaches are rare, they may be amenable to surgery with excellent outcomes.

REFERENCES

1. Wei DYT, Yuan Ong J, Goadsby PJ. Overview of trigeminal autonomic cephalalgias: Nosologic evolution, diagnosis, and management. *Ann Indian Acad Neurol.* 2018;21(5):S39-S44.
2. Chowdhury D. Secondary (Symptomatic) trigeminal autonomic cephalalgia. *Ann Indian Acad Neurol.* 2018;21(5):S57-S69.