



Spasm of the Near Reflex: Clinical Appearance

Yakın Refleks Spazmı: Klinik Görünüm

© Ezgi Yakupoğlu¹, © Yusuf Emre Doğan², © Nihan Parasız Yükselen¹, © Pelin Doğan Ak¹, © Eren Gözke¹

¹Istanbul Fatih Sultan Mehmet Training and Research Hospital, Clinic of Neurology, Istanbul, Turkey

²Manisa Demirci State Hospital, Clinic of Ophthalmology, Manisa, Turkey

Keywords: Spasm of the near reflex, accommodative spasm, convergence, myosis

Anahtar Kelimeler: Yakın refleks spazmı, akomodasyon spazmı, konverjans, miyozis

Dear Editor,

An 18-year-old female patient was admitted to our clinic with sudden-onset horizontal binocular diplopia, marked headache on the left eyebrow, and limited abduction of the left eye that started one day ago. The patient noted that she had had similar symptoms that resolved spontaneously before, but that this time it was more severe. The patient had no history of febrile illness; trauma; regular medication use; neurologic, psychiatric or other systemic disease; and ocular surgery. A neurologic examination revealed intact visual acuity in both eyes and horizontal diplopia. In the primary position, there was left convergent strabismus (Figure 1). On light reflex examination, the left pupil was meiotic. Bilateral pathology was not observed in extraocular muscles (Figures 2A, 2B). The examination performed by the ophthalmology clinic revealed no pathology in the anterior and posterior segment of the eye, and



Figure 1. In the primary position, there was left convergent strabismus.



Figure 2. A, B) There was no pathology in the extraocular muscle movements.

the optic disc was normal. Visual field examination with visual achromatic perimetry was normal. No pathology was found in the remaining neurologic or ophthalmologic examinations.

Cranial computed tomography (CT), CT angiography, and magnetic resonance imaging showed no pathology. Thyroid

Address for Correspondence/Yazışma Adresi: Ezgi Yakupoğlu MD, Istanbul Fatih Sultan Mehmet Training and Research Hospital, Clinic of Neurology, Istanbul, Turkey

Phone: +90 507 531 02 30 E-mail: yakupogluEZGI@gmail.com ORCID ID: orcid.org/0000-0002-8615-6668

Received/Geliş Tarihi: 16.05.2018 **Accepted/Kabul Tarihi:** 23.10.2018

©Copyright 2019 by Turkish Neurological Society

Turkish Journal of Neurology published by Galenos Publishing House.

function tests, liver and kidney function tests, repetitive nerve stimulation of the extraocular muscles, and lumbar puncture were found to be normal.

Functional spasm of the near reflex was considered because there was no organic pathology. Signs and symptoms improved significantly following cyclopentolate eye drop administration (Figure 3). The patient was given simultaneous psychological support and the patient's symptoms disappeared completely in the sixth month of the follow-up.

Functional near reflex spasm is rare, but it is a chronic clinical condition (1). It should be considered in the diagnosis when episodic diplopia is accompanied by myosis and disconjugate gaze (2). After excluding organic causes, functional reasons should be considered. Refractive errors should be corrected (3). Cycloplegic agents can temporarily relieve symptoms (4,5). Functional cases need psychological support and it should be noted that there is a possibility of recurrence in these cases (5).



Figure 3. Signs and symptoms improved significantly following cyclopentolate eye drop administration.

Ethics

Informed Consent: Consent form was filled out by a participant.

Peer-review: Internally peer-reviewed.

Authorship Contributions

Surgical and Medical Practices: E.Y., Y.E.D., Concept: E.Y., Design: E.Y., Y.E.D., Data Collection or Processing: E.Y., Y.E.D., Analysis or Interpretation: N.P.Y., P.D.A., Literature Search: E.Y., N.P.Y., P.D.A., Writing: E.Y.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Rhatigan M, Byrne C, Logan P. Spasm of the near reflex: A case report. *Am J Ophthalmol Case Rep* 2017;6:35-37.
2. Goldstein JH, Schneekloth BB. Spasm of the near reflex: a spectrum of anomalies. *Surv Ophthalmol* 1996;40:269-278.
3. Savin LH. Functional spasm of accommodation. *Br J Ophthalmol* 1959;43:3-8.
4. Fekete R, Baizabal-Carvallo JF, Ha AD, Davidson A, Jankovic J. Convergence spasm in conversion disorders: Prevalence in psychogenic and other movement disorders compared with controls. *J Neurol Neurosurg Psychiatry* 2012;83:202-204.
5. Cogan DG, Freese CG Jr. Spasm of the near reflex. *AMA Arch Ophthalmol* 1955;54:752-759.