

2021-01-21

Young woman with blurry vision

Christopher DiTullio
University of Massachusetts Medical School

Et al.

Let us know how access to this document benefits you.

Follow this and additional works at: <https://escholarship.umassmed.edu/oapubs>

 Part of the [Diagnosis Commons](#), [Emergency Medicine Commons](#), [Eye Diseases Commons](#), [Immune System Diseases Commons](#), and the [Nervous System Diseases Commons](#)

Repository Citation

DiTullio C, Galletta G. (2021). Young woman with blurry vision. Open Access Publications by UMMS Authors. <https://doi.org/10.1002/emp2.12360>. Retrieved from <https://escholarship.umassmed.edu/oapubs/4544>

Creative Commons License



This work is licensed under a [Creative Commons Attribution-NonCommercial-No Derivative Works 4.0 License](#). This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in Open Access Publications by UMMS Authors by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.

IMAGES IN EMERGENCY MEDICINE

Nontrauma and Medical

Young woman with blurry vision

Christopher DiTullio BS¹ | Gayle Galletta MD²¹ University of Massachusetts School of Medicine, Worcester, Massachusetts, USA² Emergency Medicine, University of Massachusetts, Worcester, Massachusetts, USA**Correspondence**

Christopher DiTullio, BS, University of Massachusetts School of Medicine, Worcester, MA 01605, USA.

Email: christopher.ditullio@umassmed.edu

Gayle Galletta, MD, University of Massachusetts School of Medicine, Worcester, MA 01605, USA.

Email: gayle.galletta@umassmemorial.org

1 | CASE NARRATIVE

1.1 | Initial presentation

A 26-year-old female with no significant past medical history presented to the emergency department with 1-week history of blurred vision and difficulty with depth perception, most pronounced when looking to the left or right while driving. She is a teacher and remarked that her students noted her eyes were "moving funny" when she looked in either direction. On examination, when the patient gazed to the right, extraocular movements showed an inability to adduct the left eye past the midline and delayed abduction of the right eye. Additionally, with gaze to the left, extraocular movements showed inability to adduct the right eye past the midline and delayed abduction of the left eye.

1.2 | Diagnosis

This video displays a stark example of bilateral intranuclear ophthalmoplegia (INO). INO is a result of a lesion to the medial longitudinal fasciculus, a pair of white matter tracks in the midline brainstem spanning from cranial nerve VI to the contralateral cranial nerve III that allows for conjugate eye movement.¹ The patient's history, in conjunction with

the physical examination findings and results of magnetic resonance imaging, rendered the diagnosis of multiple sclerosis (MS). Demyelinating disorders, such as MS, account for 34% of the cases of INO, with 73% being bilateral.¹ Stroke accounts for 38% of INO and is usually unilateral and in older patients.² The patient received 5 days of high-dose intravenous steroids with total resolution of her symptoms. The patient continues to receive treatment for relapsing-remitting MS.

REFERENCES

1. Virgo JD, Plant GT. Internuclear ophthalmoplegia. *Pract Neurol*. 2017;17(2):149-153.
2. Keane JR. Internuclear ophthalmoplegia unusual causes in 114 of 410 patients. *Arch Neurol*. 2005;62(5):714-717.

SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

How to cite this article: DiTullio C, Galletta G. Young woman with blurry vision. *JACEP Open*. 2021;2:e12360.

<https://doi.org/10.1002/emp2.12360>

This is an open access article under the terms of the [Creative Commons Attribution-NonCommercial-NoDerivs](https://creativecommons.org/licenses/by-nc-nd/4.0/) License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2021 The Authors. *JACEP Open* published by Wiley Periodicals LLC on behalf of the American College of Emergency Physicians.