

Premonitory Symptoms in Migraine

*XXV World Congress of Neurology
0560 Teaching Course Headache I*

4th October 2021

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Disclosure in ICJME + ACCME format

2018-2021

Dr Goadsby reports

- Grants and personal fees from

- Amgen (erenumab)
- Eli-Lilly (galcanezumab/lasmiditan)
- Celgene

- Other

- Consulting; Gerson Lerhman, Guidepoint
- Trigemina Inc (stock options; no fees)
- MedicoLegal work
- Publishing: Up-to-Date, Massachusetts Medical Society, Oxford University Press, Wolters Kluwer

- Patents

- * Magnetic stimulation for headache pending licensed to eNeura (Aruena) without fee

- ACCME: I have no spousal/partner conflicts, nor relationships with companies that market, distribute or resell health care goods or services consumed by, or used on, patients unless otherwise explicitly stated.

- Personal fees from

- Aeon Biopharma
- Allergan (onabotulinum toxin type A/ubrogepant/atogepant)
- **Autonomic Technologies Inc. (Pulsante SPG)**
- Biohaven (rimegepant, zavegepant)
- Clexio
- Electrocore LLC (nVNS)
- eNeura Inc (Aruena; sTMS)
- Epalex
- GlaxoSmithKline
- Impel Neuropharma
- Lundbeck/Alder Biopharmaceuticals (eptinezumab)
- Novartis (erenumab)
- Pfizer
- Santara Therapeutics
- Satsuma
- Teva Pharmaceuticals (fremanezumab)

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Learning Objectives

- To recognize the non-headache symptoms of migraine
- To comprehend developments in understanding premonitory symptoms and triggers
- To describe the neurobiology of the premonitory phase

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Key Messages

- Migraine is a complex, brain networks disorder (1, 2).
- Symptoms occurring before the pain phase of migraine have been recognised for many years (3).
- Symptoms, such as mood change or cognitive dysfunction, have been recognised in clinic populations (4, 5) and more broadly (6, 7).
- Functional neuroimaging has demonstrated activations during the premonitory phase, such as the hypothalamic region (8).

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References

1. Goadsby PJ, Holland PR, Martins-Oliveira M, Hoffmann J, Schankin C, Akerman S. Pathophysiology of Migraine- A disorder of sensory processing. *Physiological Reviews*. 2017;97:553-622.
2. Karsan N, Goadsby PJ. Biological insights from the premonitory symptoms of migraine. *Nature Reviews Neurology*. 2018;14:699-710.
3. Gowers WR. *A Manual of Diseases of the Nervous System*. Third ed. Philadelphia: P. Blakiston, Son & Co; 1899. 1357 p.
4. Drummond PD, Lance JW. Neurovascular disturbances in headache patients. *Clinical and Experimental Neurology*. 1984;20:93-9.
5. Schoonman GG, Evers DJ, Terwindt GM, van Dijk JG, Ferrari MD. The prevalence of premonitory symptoms in migraine: a questionnaire study in 461 patients. *Cephalalgia*. 2006;26:1209-13.
6. Rasmussen BK, Olesen J. Migraine with aura and migraine without aura: an epidemiological study. *Cephalalgia*. 1992;12:221-8.
7. Kelman L. The premonitory symptoms (prodrome): a tertiary care study of 893 migraineurs. *Headache*. 2004;44:865-72.
8. Maniyar FH, Sprenger T, Monteith T, Schankin C, Goadsby PJ. Brain activations in the premonitory phase of nitroglycerin triggered migraine attacks. *Brain*. 2014;137:232-42.