

Editorial

Basic and Clinical Advances in the Diagnosis and Management of Migraine

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Received 25 February 2020; Accepted 25 February 2020; Published 12 March 2020

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Migraine is a common headache disorder and is one of the highest causes of disability among the population in the world [1]. It is estimated that 20.2% of women and 9.4% of men suffer from this disorder [2]. It is typically unilateral and frequently present in the form of throbbing or pulsating sensation and other associated symptoms, including nausea, vomiting, phonophobia, and photophobia [3]. Usually, the symptoms may last several hours to days, severely impairing the quality of life. It is believed that neuroinflammation, dysfunction of the descending pain-modulating network, altered trigeminal and autonomic system function, and other mechanisms may contribute to migraine [4–6]. Moreover, recent studies have provided new findings in the genetic causes, anatomical and functional characteristics, and pathological potentials of migraine. For example, genomic loci associated with migraine were enriched in genes that are expressed in gastrointestinal tissues [7]. This may explain the gastrointestinal symptoms concomitant with pain attacks, like nausea, vomiting, and the like. Studies have suggested that migraine headache is significantly associated with infant colic and inflammatory bowel disease [8, 9].

This special issue aims to cover migraine-related studies and provide a multidisciplinary treatment strategy for it. In this issue, readers will find six papers studying a wide spectrum of aspects of migraine: “Human Urinary Kallidinogenase Reduces Lipopolysaccharide-Induced Neuroinflammation and Oxidative Stress in BV-2 Cells” by Z. Zhao et al., “Curcumin Protects Human Umbilical Vein Endothelial Cells against H₂O₂-Induced Cell Injury” by J. Ouyang, “Cognitive Decline in Chronic Migraine with Nonsteroid

Anti-Inflammation Drug Overuse: A Cross-Sectional Study” by X. Cai et al., “Effects of Diet Based on IgG Elimination Combined with Probiotics on Migraine Plus Irritable Bowel Syndrome” by Y. Xie et al., “The Relationship between Infant Colic and Migraine as well as Tension-Type Headache: A Meta-Analysis” by D. Zhang et al., and “Effect of Core Stability Training Monitored by Rehabilitative Ultrasound Image and Surface Electromyogram in Local Core Muscles of Healthy People” by Y. Zheng et al.

The studies included in this issue will help understand and develop new research in a most recent viewpoint.

Conflicts of Interest

The editors declare that there are no conflicts of interest.

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References

- [1] P. E. Bohm, F. F. Stancampiano, and T. D. Rozen, “Migraine headache: updates and future developments,” *Mayo Clinic Proceedings*, vol. 93, no. 11, pp. 1648–1653, 2018.
- [2] D. Millstine, C. Y. Chen, and B. Bauer, “Complementary and integrative medicine in the management of headache,” *BMJ*, vol. 357, p. j1805, 2017.
- [3] A. Charles, “The pathophysiology of migraine: implications for clinical management,” *The Lancet Neurology*, vol. 17, no. 2, pp. 174–182, 2018.

- [4] R. Ramachandran, "Neurogenic inflammation and its role in migraine," *Seminars in Immunopathology*, vol. 40, no. 3, pp. 301-314, 2018.
- [5] D. Bree and D. Levy, "Development of CGRP-dependent pain and headache related behaviours in a rat model of concussion: implications for mechanisms of post-traumatic headache," *Cephalalgia*, vol. 38, no. 2, pp. 246-258, 2018.
- [6] M. G. Miglis, "Migraine and autonomic dysfunction: which is the horse and which is the jockey?" *Current Pain and Headache Reports*, vol. 22, no. 3, 2018.
- [7] I. de Boer, A. van den Maagdenberg, and G. M. Terwindt, "Advance in genetics of migraine," *Current Opinion in Neurology*, vol. 32, no. 3, pp. 413-421, 2019.
- [8] X. Moisset, G. Bommelaer, M. Boube et al., "Migraine prevalence in inflammatory bowel disease patients: a tertiary-care centre cross-sectional study," *European Journal of Pain*, vol. 21, no. 9, pp. 1550-1560, 2017.
- [9] A. A. Gelfand, "Episodic syndromes of childhood associated with migraine," *Current Opinion in Neurology*, vol. 31, no. 3, pp. 281-285, 2018.