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The changing faces of migraine

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Migraine represents today the crossroads of several scientific evidences, such as lofty planetary prevalence, serious disability, damaged quality of life, reduced productive capacity, costly healthcare resulting in a creeping sentiment of social stigma [1–3]. From the same crossroads, the migraine paradigm as a multimorbid disease flows out [4]: perhaps multi-systemic, however to be scanned and evaluated at a distance as the horizon, in order to avoid the risk of parcelling its real extent.

From before the triptans era, in less than 30 years we have passed from the common acceptance of migraine as an ineluctable family heredity to the evidence of a complex genetic trait involving genomics, metabolomics and, perhaps in the near future, also proteomics [5, 6].

In the meantime, the awareness of migraine as real disease has been widespread in the general population and even physicians’ education on migraine has made giant steps forward at different levels of research, professionalism and safe prescription [7–10].

Now that we are facing a new era, the Calcitonin Gene Related Peptide (CGRP) one, with new perspectives and hopes that only a new pharmacological class dedicated to the prevention of migraine can offer, we must not forget what has made this possible: solid and undisputable scientific evidences acquired over the years first on animal and then on human models [11, 12].

This topical collection helps us to orient the readership in the great mass of data that emerge from literature and systematize them in a series of comprehensive reviews, progressively centered on chained topics. From the classic burden of disease to the new acquisitions of genetics, from the new pathophysiology CGRP-centered of migraine to the description of the various new molecules and their correct and safe therapeutic application, up to the rocks of refractoriness and the unavoidable ethical and economic need to identify the right patient for the right drug using the precision medicine [13, 14].

Satisfied all the parameters, before the end of this path we could have the chance to mark out the vanishing point of migraine and to score the greatest try to be devoted to each migraine patient.

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References
1. Saylor D, Steiner TJ (2018) The global burden of headache. Semin Neurol 38(2):182–190
2. Martelletti P (2018) Migraine disability complicated by medication overuse. Eur J Neurol 25(10):1193–1194
3. Parikh SK, Young WB (2019) Migraine: stigma in society. Curr Pain Headache Rep 23(1):8
4. D’Amico D, Sansone E, Grazzi L, Giovannetti AM, Leonardi M, Schiavolin S, Raggi A (2018) Multimorbidity in patients with chronic migraine and medication overuse headache. Acta Neurol Scand 138(6):515–522
5. Nyholt DR, Borsook D, Griffiths LR (2017) Migrainomics - identifying brain and genetic markers of migraine. Nat Rev Neurol 13(12):725–741. https://doi.org/10.1038/nrneurol.2017.151
6. Lionetto L, Gentile G, Bellei E, Capi M, Sabato D, Marsibilio F, Simmaco M, Pini LA, Martelletti P (2013) The omics in migraine. J Headache Pain 14:55
7. European Headache Federation School of Advanced Studies (EHF-SAS). https://ehf-org.org/aims-and-scope/. Accessed 29 Apr 2019
8. Master in Headache Medicine, Sapienza University of Rome. https://web.uniroma1.it/masterheadache/. (viewed 18 Feb 2019)
9. Master of Headache Disorders, University of Copenhagen. https://mhd.ku.dk (viewed 18 Feb 2019)
10. Kramers C, Jansen BJ, Koel W, Hessel M, Mulder WM, Dumont G, van den Brink AM, Tichelaar J (2017) A licence to prescribe. Br J Clin Pharmacol 83(8):1860–1861
11. Edvinsson L (2019) Role of CGRP in migraine. Handb Exp Pharmacol. https://doi.org/10.1007/164_2018_201
12. Ashina H, Schytz HW, Ashina M (2018) CGRP in human models of migraine. Handb Exp Pharmacol. https://doi.org/10.1007/164_2018_128.
13. Pomes LM, Gentile G, Simmaco M, Borro M, Martelletti P (2018) Tailoring treatment in Polymorbid migraine patients through personalized medicine. CNS Drugs 32(6):559–565
14. Capi M, Gentile G, Lionetto L, Salerno G, Cipolla F, Curto M, Borro M, Martelletti P (2018) Pharmacogenetic considerations for migraine therapies. Expert Opin Drug Metab Toxicol 14(11):1161–1167

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