



Editorial

Migraine in Covid-19 lockdown

Marcelo Moraes Valença , Juliana Ramos de Andrade 

Universidade Federal de Pernambuco, Recife, Pernambuco, Brazil



Marcelo Moraes Valença
mmvalenca@yahoo.com.br

There is a well-known curiosity among patients who suffer from migraine that various factors such as a particular variety of food, a specific smell, change in weather, stress, disturbances in sleep, menstruation and fasting, among others, can precipitate a migraine crisis.¹⁻¹¹ Even smartphone electromagnetic radiation may be a modern technological trigger of a migraine attack.¹² Often after exposure to these factors, the patient has a migraine crisis minutes later.

Covid-19 has a headache as one of the main symptoms in clinical expression,¹³⁻¹⁷ besides the pathognomonic anosmia.¹⁸⁻¹⁹

In recent years, great changes have occurred in how people organize their lives. The Covid-19 pandemic substantially changed everyone's daily lives²⁰ with behavioral changes to stop or reduce the spread of Sars-Cov-2. Thus, the world population had to stay home, in the so-called lockdown. Moving away from social interaction is a significant maleficent measure for mental health that may expose individuals to several factors which could facilitate migraine attacks.²¹⁻²⁴

Studies were published following migraine patients during the Covid-19 lockdown to assess the number of attacks, possible triggering factors, and preventive measures.^{21, 23-26 23, 27-32}

Al-Hashel and colleagues²⁶ address with great propriety how the Covid-19 lockdown has affected the migraine pattern among individuals living in Kuwait.

The authors studied 340 subjects who listed 15 classical triggers for their migraine attacks and evaluated several possible other precipitating factors of migraine attacks. They describe significant changes in how such factors would act before and after the Covid-19 pandemic.²⁶

Interestingly, the cultural relationship with one of the most cited migraine triggers - a strong or particular type of smell - was commented on during the lockdown. The reason that odors are indicated as the main trigger of migraine attacks is interpreted as increased consumption and exposure to incense smoke and the use of Arab perfumes by the population.

Kuwaiti population is known to use Arabic perfume and smell incense frequently. Many people in the Arab Gulf region believe that incense smoke can kill germs and microbes in the air, providing a feeling of protection from the virus.

The article also discusses how the Covid-19 lockdown influenced other migraine triggers in patients registered at the headache clinic at the Ib Sina hospital in Kuwait.

We conclude that there has been a drastic change in the way humans communicate in the last two years, possibly even with a return to a situation without Covid-19 or living with mild endemics, the world will never go back to what it was in 2019. Exposure to certain precipitating factors of migraine attacks may have changed in frequency and intensity, or even clustering of factors that can trigger a headache attack together. Great adaptations occurred, we would even consider that they were established because of the pandemic, but they proved to be come to stay, facilitating work performance and academic activities.

Received: June 27, 2022
Accepted: June 30, 2022



References

- Dalkara T and Kilic K. **How does fasting trigger migraine? A hypothesis.** *Curr Pain Headache Rep* 2013;17(10):368 Doi:10.1007/s11916-013-0368-1
- Silva-Neto RP, Peres MF and Valença MM. **Odorant substances that trigger headaches in migraine patients.** *Cephalalgia* 2014;34(1):14-21 Doi:10.1177/0333102413495969
- Fraga MD, Pinho RS, Andreoni S, Vitalle MS, Fisberg M, Peres MF, . . . Masruha MR. **Trigger factors mainly from the environmental type are reported by adolescents with migraine.** *Arq Neuropsiquiatr* 2013;71(5):290-293 Doi: 10.1590/0004-282x20130023
- Kohler T and Haimerl C. **Daily stress as a trigger of migraine attacks: results of thirteen single-subject studies.** *J Consult Clin Psychol* 1990;58(6):870-872 Doi:10.1037//0022-006x.58.6.870
- Patel RM, Sarma R and Grimsley E. **Popular sweetener sucralose as a migraine trigger.** *Headache* 2006;46(8):1303-1304 Doi:10.1111/j.1526-4610.2006.00543_1.x
- Wober C, Holzhammer J, Zeithofer J, Wessely P and Wober-Bingol C. **Trigger factors of migraine and tension-type headache: experience and knowledge of the patients.** *J Headache Pain* 2006;7(4):188-195 Doi:10.1007/s10194-006-0305-3
- Fukui PT, Gonçalves TR, Strabelli CG, Lucchino NM, Matos FC, Santos JP, . . . Peres MF. **Trigger factors in migraine patients.** *Arq Neuropsiquiatr* 2008;66(3A):494-499 Doi:10.1590/s0004-282x2008000400011
- Panconesi A. **Alcohol and migraine: trigger factor, consumption, mechanisms. A review.** *J Headache Pain* 2008;9(1):19-27 Doi:10.1007/s10194-008-0006-1
- Chakravarty A, Mukherjee A and Roy D. **Trigger factors in childhood migraine: a clinic-based study from eastern India.** *J Headache Pain* 2009;10(5):375-380 Doi:10.1007/s10194-009-0147-x
- Silva-Neto RP, de Almeida Soares A, Augusto Carvalho de Vasconcelos C and da Silva Lopes L. **Watermelon and others plant foods that trigger headache in migraine patients.** *Postgrad Med* 2021;133(7):760-764 Doi:10.1080/00325481.2021.1922211
- Xie YJ, Lin M, Wong YT, Yan L, Zhang D and Gao Y. **Migraine Attacks and Relevant Trigger Factors in Undergraduate Nursing Students in Hong Kong: A Cross-Sectional Study.** *J Pain Res* 2022;15:701-713 Doi:10.2147/JPR.S337465
- Chongchitpaisan W, Wiwatanadate P, Tanprawate S, Narkpongphan A and Siripon N. **Trigger of a migraine headache among Thai adolescents smartphone users: a time series study.** *Environ Anal Health Toxicol* 2021;36(1):e2021006-2021000 Doi:10.5620/eah.2021006
- Sampaio Rocha-Filho PA. **Headache associated with COVID-19: Epidemiology, characteristics, pathophysiology, and management.** *Headache* 2022;62(6):650-656 Doi:10.1111/head.14319
- Bolay H, Gul A and Baykan B. **COVID-19 is a Real Headache!** *Headache* 2020;60(7):1415-1421 Doi:10.1111/head.13856
- Straburzynski M, Nowaczewska M, Budrewicz S and Waliszewska-Prosol M. **COVID-19-related headache and sinonasal inflammation: A longitudinal study analysing the role of acute rhinosinusitis and ICHD-3 classification difficulties in SARS-CoV-2 infection.** *Cephalalgia* 2022;42(3):218-228 Doi:10.1177/033310242111040753
- Valença MM, Andrade JRd and Peres MFP. **Long Covid and persistent headache.** *Headache Medicine* 2020;11(4):79-80 Doi:10.48208/HeadacheMed.2020.23
- Romero JGdAJ, Salles-Neto FTd, Stuginski-Barbosa J, Conti PCR and Almeida-Leite CM. **COVID-19 pandemic impact on headache in healthcare workers: a narrative review.** *Headache Medicine* 2021;12(2):75-82 Doi:10.48208/HeadacheMed.2021.17
- Sampaio Rocha-Filho PA, Albuquerque PM, Carvalho L, Dandara Pereira Gama M and Magalhaes JE. **Headache, anosmia, ageusia and other neurological symptoms in COVID-19: a cross-sectional study.** *J Headache Pain* 2022;23(1):2 Doi:10.1186/s10194-021-01367-8
- Aragao M, Leal MC, Cartaxo Filho OQ, Fonseca TM and Valença MM. **Anosmia in COVID-19 Associated with Injury to the Olfactory Bulbs Evident on MRI.** *AJNR Am J Neuroradiol* 2020;41(9):1703-1706 Doi:10.3174/ajnr.A6675
- Heymann DL, Shindo N, Scientific WHO and Technical Advisory Group for Infectious H. **COVID-19: what is next for public health?** *Lancet* 2020;395(10224):542-545 Doi:10.1016/S0140-6736(20)30374-3
- Papetti L, Alaimo Di Loro P, Tarantino S, Grazi L, Guidetti V, Parisi P, . . . Valeriani M. **I stay at home with headache. A survey to investigate how the lockdown for COVID-19 impacted on headache in Italian children.** *Cephalalgia* 2020;40(13):1459-1473 Doi:10.1177/0333102420965139
- Kristoffersen ES, Faiz KW, Sandset EC, Storstein AM, Stefansen S, Winsvold BS and Hansen JM. **Hospital-based headache care during the Covid-19 pandemic in Denmark and Norway.** *The Journal of Headache and Pain* 2020;21(1) Doi:10.1186/s10194-020-01195-2
- Verhagen IE, van Casteren DS, de Vries Lentsch S and Terwindt GM. **Effect of lockdown during COVID-19 on migraine: A longitudinal cohort study.** *Cephalalgia* 2021;41(7):865-870 Doi:10.1177/0333102420981739
- Raffaelli B, Mecklenburg J, Scholler S, Overeem LH, Oliveira Gonçalves AS, Reuter U and Neeb L. **Primary headaches during the COVID-19 lockdown in Germany: analysis of data from 2325 patients using an electronic headache diary.** *The Journal of Headache and Pain* 2021;22(1) Doi:10.1186/s10194-021-01273-z
- Pellegrino ABW, Davis-Martin RE, Houle TT, Turner DP and Smitherman TA. **Perceived triggers of primary headache disorders: A meta-analysis.** *Cephalalgia* 2018;38(6):1188-1198 Doi:10.1177/0333102417727535
- Al-Hashel JY, Abokalawa F and Ahmed SF. **New precipitating factors for migraine during Covid-19 pandemic lockdown.** *Headache Medicine* 2022;13(2):111-116 Doi:10.48208/HeadacheMed.2022.6
- Chowdhury D, Krishnan A, Duggal A, Datta D, Mundra A, Deorari V, . . . Koul A. **An Internet-based study on the impact of COVID-19 pandemic-related lockdown on migraine in India.** *Acta Neurol Scand* 2021;144(6):706-716 Doi:10.1111/ane.13525
- Curro CT, Ciacciarelli A, Vitale C, Vinci ES, Toscano A, Vita G, . . . Autunno M. **Chronic migraine in the first COVID-19 lockdown: the impact of sleep, remote working, and other life/psychological changes.** *Neurol Sci* 2021;42(11):4403-4418 Doi:10.1007/s10072-021-05521-7
- Gonzalez-Martinez A, Planchuelo-Gomez A, Guerrero AL, Garcia-Azorin D, Santos-Lasaosa S, Navarro-Perez MP, . . . Gago-Veiga AB. **Effects of the onabotulinumtoxinA follow-up delay in migraine course during the COVID-19 lockdown.** *Neurol Sci* 2021;42(12):5087-5092 Doi:10.1007/s10072-021-05180-8
- Gonzalez-Martinez A, Planchuelo-Gomez A, Guerrero AL, Garcia-Azorin D, Santos-Lasaosa S, Navarro-Perez MP, . . . Gago-Veiga AB. **Evaluation of the Impact of the COVID-19 Lockdown in the Clinical Course of Migraine.** *Pain Med* 2021;22(9):2079-2091 Doi:10.1093/pm/pnaa449
- Consonni M, Telesca A, Grazi L, Cazzato D and Lauria G. **Life with chronic pain during COVID-19 lockdown: the case of patients with small fibre neuropathy and chronic migraine.** *Neurol Sci* 2021;42(2):389-397 Doi:10.1007/s10072-020-04890-9
- Dallavalle G, Pezzotti E, Provenzi L, Toni F, Carpani A and Borgatti R. **Migraine Symptoms Improvement During the COVID-19 Lockdown in a Cohort of Children and Adolescents.** *Front Neurol* 2020;11:579047 Doi:10.3389/fneur.2020.579047