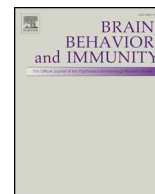




Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Letter to the Editor

Cutaneous hyperesthesia: A novel manifestation of COVID-19



ARTICLE INFO

Keywords:

SARS-CoV2 infection
 COVID-19
 Neurological symptoms

To the Editor,

We have read the article by [Liguori et al. \(2020\)](#) with great interest. The authors evaluated the prevalence and listed the most common subjective neurological symptoms (sNS) in patients suffering from SARS-Coronavirus-2 (SARS-CoV-2) infection. We deeply understand the importance of the search for additional symptoms of COVID-19 in the era of coronavirus pandemic. Therefore, we would like to share our experience and complete the list of sNS with cutaneous hyperesthesia. The abnormal sensitivity of the skin was reported by two of our patients with confirmed SARS-CoV-2 infection. Both of them were treated with hydroxychloroquine (200 mg twice a day) and were asymptomatic after 10 days of the therapy.

The first patient was a 40-year-old male doctor. The first observed symptoms were general malaise and fever of 38 °C. On the same day, the patient reported burdensome cutaneous hyperesthesia, which he described also as abnormal hypersensitivity. The sensation started abruptly and affected whole body; however, it mostly concerned his abdomen and back. He stated that this feeling was aggravated by any kind of touch (clothing, furniture, bed) and alleviated by warm baths, which he would take before going to bed to be able to fall asleep. The intensity of cutaneous hyperesthesia did not vary throughout the day, although, started to decrease after five days of infection. The sensation persisted for 10 days, the same period of time as his general symptoms.

The second patient was a 40-year-old woman. The first symptoms included fever and dry cough. As her husband, the woman also reported skin hypersensitivity on the first day of symptoms. She stated, that any contact with clothing was unbearable. In this case, the cutaneous hyperesthesia also affected mostly the abdomen and the back. The only alleviating factor was a therapy with diclofenac pills, from which she was advised against by infectiologist. On the fifth day, the patient reported itchy rash (fine papular, fine scaly pink exanthema) of the mammary area, which would later spread to the abdomen and neck. The cutaneous hyperesthesia was absent in the areas affected by the rash. According to the woman, she experienced similar rash and hyperesthesia with previous influenza-like virus infections. Both the exanthema and the hypersensitivity disappeared along with the general symptoms on the 10th day. During the infection the patient developed

pneumonia, reported dysgeusia and anosmia. She was treated with a 3-days course of azithromycin (500 mg).

Cutaneous hyperesthesia is defined by the International Association for the Study of Pain as increased sensitivity to stimulation ([Merskey, 2002](#)). The pathogenesis is yet to be fully understood, however, peripheral and central nervous system injury, reorganization in dorsal horns and diminished number of C fibers in the affected zone ([Hadley et al., 2016](#)) may play the vital role. To the best of our knowledge, cutaneous hyperesthesia in patients suffering from SARS-CoV-2 infection has not been reported so far. However, the similarity of the symptoms to those reported in Herpes Virus infections ([Yamada et al., 2019](#)) may favor the possible intrinsic neurotropic properties of SARS-CoV-2 suggested by the authors ([Liguori et al., 2020](#)).

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

- [Liguori, C., Pierantozzi, M., Spanetta, M., Sarmati, L., Cesta, N., Iannetta, M., et al., 2020.](#) Subjective neurological symptoms frequently occur in patients with SARS-CoV2 infection. *Brain Behav. Immun.*
- [Merskey, H., 2002.](#) International Association for the Study of Pain, Task Force on Taxonomy. Classification of chronic pain: descriptions of chronic pain syndromes and definitions of pain terms. Seattle: IASP.
- [Hadley, G.R., Gayle, J.A., Ripoll, J., Jones, M.R., Argoff, C.E., Kaye, R.J., et al., 2016.](#) Post-herpetic Neuralgia: a review. *Curr. Pain Headache Rep.* 20 (3), 17.
- [Yamada, K., Kubota, Y., Shimizu, Y., Cui, R., Mori, Y., Okuno, Y., et al., 2019.](#) Sleep shortage is associated with postherpetic neuralgia development through hyperesthesia and acute pain intensity: a community-based prospective cohort study. *Pain Pract.* 19 (5), 476–483.

Piotr K. Krajewski, Jacek C. Szepietowski*, Joanna Maj
 Department of Dermatology, Venereology and Allergology, Wrocław Medical
 University, Chalubinskiego 1, 50-368 Wrocław, Poland
 E-mail address: jacek.szepietowski@umed.wroc.pl (J.C. Szepietowski).

* Corresponding author.

<https://doi.org/10.1016/j.bbi.2020.05.064>

Received 24 May 2020; Accepted 24 May 2020

Available online 25 May 2020

0889-1591/ © 2020 Elsevier Inc. All rights reserved.