



What changes occurred in patients with chronic pain in the early phase of the COVID-19 pandemic?

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Introduction

The outbreak of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Cov2) infections, causing a disease that was named COVID-19, was declared a pandemic by the World Health Organization on March 11, 2020 [1]. The COVID-19 pandemic led to lockdown measures in almost all countries worldwide and has had unprecedented impacts on daily life, work and public health systems. Communities in many countries instituted social and physical distancing policies that included closures of schools and workplaces during the lockdown [2]. Meta-analyses have shown that the non-infected population had high prevalences of anxiety, depression, insomnia and psychological distress in the early phase of the pandemic [3, 4].

A longitudinal cohort study showed that people with physical disabilities may be at risk for poor quality of life, emotional distress and decreased well-being during the pandemic [5]. The pandemic negatively affected the mental health of many people, especially people in vulnerable groups. How did the pandemic affect patients with chronic pain? There has been an increasing number of reports on the health and pain status of patients with chronic pain in the early phase of the pandemic in the spring and summer of 2020. In this editorial, the author will look back on the situations of patients with chronic pain in various countries and suggest what we should learn from reports.

Various impacts of the pandemic on patients with chronic pain in different countries

In Japan, the first declaration of a state of emergency was issued from April 16 to May 14 in 2020. Fujiwara et al.

reported the effects of the pandemic in the early stage on patients with chronic pain in Japan [6]. The patients were not asked to reduce their hospital visits during the pandemic and treatment for pain continued unchanged in their institute, although some services for outpatient and in-home rehabilitation were closed in the area. Their study, which included 245 patients with a median age of 73 years, showed that pain intensity, disability, depression, anxiety and exercise habits in the patients did not change from autumn in 2019 to summer in 2020, suggesting that there were no apparent effects of the pandemic in the area in which the study was conducted.

Kersebaum et al. investigated the effects of the pandemic on patients with painful polyneuropathy in Germany using questionnaires that were sent on April 3 in 2020, about 2 weeks after restrictions had been initiated by the government [7]. Forty-three patients with a mean age of 66 years were included in their study. Pain worsened in only 11.6% of the patients. More than 80% of the patients in their study had experienced a change in social life and 45% of the patients had experienced constraints in health care services since the start of the pandemic. The pain intensity in patients who had experienced a change in social life in the very early phase of the imposition of restrictions was worse than that in patients who had not experienced a change in social life and more than 80% of the patients were concerned about the pandemic's course. Ruminating on pain was significantly reduced at that time, suggesting that attention was shifted from the pain condition to the real threat of the devastating pandemic.

An online survey conducted by Nieto et al. between April 27 and May 25 in 2020 showed the impact of lockdown restrictions on Spanish people with chronic pain [8]. Spain was under a state of emergency from March 13 to June 21 in 2020 with restrictions on people's movement. Data for 502 participants, mainly women (88%), were analyzed. Approximately 70% of the participants experienced worsening of pain and almost half of the participants increased their medication intake. A large percentage of patients felt

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that sleep problems, worries about the future, loneliness, and fear of suffering from COVID-19 triggered pain during the lockdown. On the other hand, some people started doing stretching and exercise for pain.

An online survey in 1453 patients with chronic pain (average age of 41 years) conducted in the United States between April 22 and May 15 in 2020 showed that approximately 60% of the participants had no changes in their pain intensity and pain interference since the start of the COVID-19 pandemic and that 25–30% of the participants had worsened pain intensity and pain interference [9]. More than half of the participants reported worsened mood and a negative impact on their sleep quality. About half of the appointments for mental health treatment and physical therapy were cancelled or postponed and approximately 20% of the participants had limited access to opioid medication. Appointments for about 40% of the participants who were receiving mental health treatment before the pandemic were changed to telehealth.

Lacasse et al. conducted a web-based survey between April 16 and May 31 in 2020 and reported the impact of the pandemic on chronic pain patients with a mean age of 49 years in Canada [10]. Data for 2864 participants were analyzed and only 0.9% of the participants had been diagnosed with COVID-19 at time of the survey. Approximately 40% of the participants who were receiving pharmacological pain treatment experienced changes in their pharmacotherapy. The main reasons for changing medication during the pandemic restrictions were listed in descending order as follows: change in pain status, difficult access to prescribers because of cancellation, and increased drug intake to compensate for cessation of other treatments. Various factors including changes in pain symptoms, change in employment status, changes in physical and psychological therapies, and presence of psychological distress symptoms were associated with changes in pharmacological pain treatment.

Need for support for patients with worsening pain

The reports referred to above indicate that not all but a large percentage of patients with chronic pain were affected by the various changes during the early phase of the pandemic such as rapid changes in society, exacerbation of sleep problems, reduced number of hospital visits and worries about the future even in the absence of viral infection. Online or web-based surveys allow researchers to easily obtain a large amount of data, but we need to be aware of the possibility that patients who could not or did not respond to the surveys were not included in the studies. Infection status varied throughout the world. The government in each country has set different stringency levels depending on the culture, social acceptance, medical capacity, and economic loss [11]. These factors might contribute to the differences

in pain intensity and mental health of patients with chronic pain in different countries.

Individuals with chronic pain are at risk of falling into social disconnection and a smaller social network size. Loneliness associated with social isolation is a risk factor for the development of pain and depression [12]. These changes may negatively affect the pain interference and pain intensity [13]. Some patients with chronic pain were unable to receive their usual pain treatments (pharmacological and nonpharmacological treatments) during the restriction and social distance measures, resulting in unmanaged pain. It is difficult to predict worsening of chronic pain because chronic pain is probably affected by multiple factors. Patients with worsening pain may need to be supported though continuation of treatment even if the same treatment cannot be continued.

Is telehealth a promising way for patients with chronic pain?

The pandemic not only had negative effects on medical health systems but also caused rapid changes in medical practice. Telehealth, a caring practice that is conducted remotely through the Internet or by telephone, has been increasingly used since the start of the pandemic. In patients with chronic pain, it has been shown that remote psychological treatment via telehealth had beneficial effects for reducing pain intensity [14] and that telehealth-delivered physical exercise interventions were effective for reducing pain [15]. On the other hand, telehealth has possible disadvantages including potentially less accurate evaluation of the patient's condition compared to that with a conventional in-person visit, time-consuming patient education about the use of remote tools, and equipment upgrade for remote care [16]. In addition, medical care via telehealth services may be challenging for patients with a poor health status and a low level of literacy in technology [17]. Telehealth has been greatly promoted during the pandemic, but the balance between costs and benefits is unclear.

Summary

In the period from spring to summer in 2020, there was a large variation in the impact of the COVID-19 pandemic on patients in different countries. Even in the absence of viral infection, not all but a large percentage of patients with chronic pain were affected by abrupt changes in society with modifications of pain treatment and limited access to medical facilities. It seems to be important to identify patients whose pain is becoming worse while continuing pain treatment as much as possible. Telehealth may be a useful method for patients with chronic pain, but there are many points that need to be investigated and improved. We were

not sufficiently prepared to deal with the various changes in the early phase of the pandemic. Further research is required to provide adequate treatment measures for patients with chronic pain who are in need of continuous treatment when there is limited access to medical facilities.

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Declarations

Conflict of interest The author declared that there are no conflicts of interest.

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