

COVID-19 Letter

 **Between Scylla and Charybdis: Navigating Chronic Pain Patients Through the COVID-19 and the Opioid Pandemic**

Gregor A. Bara, MD¹, Dirk de Ridder, MD, PhD², Hartmut Vatter, MD, PhD¹, and Jaroslaw Maciaczyk, MD, PhD^{1,2}

From: Department of Neurosurgery, University Hospital Bonn, Germany

Address Correspondence:
Gregor A. Bara, MD
Department of Neurosurgery,
University Hospital Bonn,
Germany
E-mail:
gregor.bara@ukbonn.de

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Today's medical professionals face 2 evils: COVID-19 as well as the opioid pandemic. With increasing numbers of infections and fatalities throughout the world and limited amounts of protection equipment and ventilators, health-care providers have relocated resources towards emergency departments and intensive care units. Non-emergency elective procedures have been postponed. Thus, chronic pain patients are neglected which impacts life quality and expectancy and is being curbed by improper use of opioids. Consequently, it can be expected that the COVID-19 pandemic will eventually lead to a magnification of morbidity and mortality of chronic pain conditions.

We conclude that chronic pain conditions should not be treated as non-urgent conditions, but that health-care professionals should feel morally and ethically obliged to offer interventional procedures and operations (be it spinal surgery or invasive neuromodulation), not in spite of the COVID-19 pandemic but because of it.

Odysseus, hero of Homer's epic opus *Odyssey*, once navigated through the narrow Strait of Messina between Sicily and the Italian mainland Calabria with 2 life-threatening evils within an arrow-shot of each other: On the one side of the strait there was Scylla, a vicious sea monster, on the opposite side there was Charybdis, a whirlpool, which no ship could escape. Odysseus, trying to avoid losing his entire ship to Charybdis, went too close to Scylla losing his crewmen, but eventually safeguarding the ship.

Nowadays, medical professionals, like Odysseus in Homer's tale, face 2 evils: the imminent threat of COVID-19 as well as the opioid pandemic. The goal has to be to navigate our patients through this narrow strait.

The epidemic of severe acute respiratory syndrome caused by coronavirus 2 (SARS-CoV-2) has rapidly spread over the world and been declared a pandemic by the World Health Organization as coronavirus disease 2019 (COVID-19) (1). Numerous infections and fatalities have been reported in almost all countries. The number of infections has increased to 4.6 millions in the United States alone with more than more than 150,000 fatalities. Worldwide numbers have reached 18 million confirmed infections and more than 688,000 fatalities as of August 3rd, 2020, with an overall mortality rate of 7% (2). Early published data indicate 25.9% of patients with SARS-CoV-2 pneumonia required intensive care unit admission and 20.1% developed acute respiratory distress syndrome, which constitutes the main cause of death (3). With no therapeutic agent available, the provision of supportive care, such as oxygenation, intubation, and mechanical ventilation, is currently the only treatment option (4). Facing the challenge of steadily increasing numbers of patients and limited amounts of protection equipment and ventilators, health-care providers have relocated resources towards emergency departments and intensive care units. Non-emergency elective procedures for patients with long-standing conditions have been postponed.

Chronic pain patients are being neglected given the longevity of the pain condition, the need of an extensive diagnostic workup and multi-modal therapy, and the time consuming face-to-face doctor-patient relationship. The National Health Survey has shown 55.7% of all adults in the United States have experienced pain in the past 3 months, with 32% experiencing pain every or almost every day, and 11.2% reporting severe, debilitating pain (5). Chronic pain is the main cause of disability and the number one reason for admission to the ambulatory health-care system, causing annual costs of up to \$635 billion US dollars (6). Moreover, chronic pain conditions have been shown to impact life expectancy, suicidal thoughts and suicide rates, and poverty (7). Over the last decades the perception of chronic pain patients has profoundly changed within the medical community. Previously chronic pain was often misunderstood as trivial and left untreated, nowadays pain treatment constitutes a medical necessity. However, the rise in awareness of chronic pain conditions, the documentation of pain intensity scores as one of the vital signs, as well as the lack of knowledge of medical management have often led to inappropriate treatment by overuse of opioids and given rise to the opioid pandemic (8). The over-prescription of mostly synthetic opioids by health-care professionals is the main driver of drug overdose deaths. The United States Center of Disease Control reported more than 70,000 deaths in 2017 due to this condition, which does not include the cases of suicide by intentional overdose (9). The National Safety Council has reported the

chance of dying from unintentional opioid overuse being 1 in 96 cases, surpassing the chance of dying in a vehicle accident (10).

Chronic pain patients who take opioids have higher levels of comorbid anxiety and depression (11), around 50% (48.4% for anxiety, 57.1% for depression) (12), which is higher than the 20% prevalence of depression and anxiety in chronic pain in general (13).

The COVID-19 pandemic increases anxiety, depression, and stress (14), and more so in patients with these pathologies than healthy people (15). Furthermore, the anxiety and depression increase more in quarantined than non-quarantined patients (16). High levels of

depression and anxiety are known to worsen pain and pain-related disability (17).

Consequently it can be expected that the COVID-19 pandemic will eventually lead to a magnification of morbidity and mortality in chronic pain conditions, detrimental not only to the patients involved, but society as a whole, due to its high social impact.

Due to redistribution of resources, cancelled interventional procedures and operations, and longer waiting times for an appointment with a pain specialist, we face the risk of harm from undertreatment. Studies have pointed out that waiting times of more than 6 months significantly increase pain burden and secondary depression and suicidal thoughts while decreasing quality of life (18). Moreover, long-term data show that the longer patients suffer from pain and await proper treatment, the more treatment non-responders result (19). Recent lockdown restrictions and social distancing measures by state authorities increase social isolation of patients and therefore psychological comorbidities. All in all, this may eventually lead to increased burdens on individuals and also increased socio-economic burdens in the foreseeable future.

It needs also to be considered that chronic pain conditions correlate with older age, chronic heart and lung comorbidities, prevalence of smoking, lower socio-economic status, and impaired access to health-care systems. All these factors are also predispositions for a critical course of COVID-19. Therefore, chronic pain patients, especially those with comorbid anxiety and depression, although not more susceptible to the SARS-CoV 2 virus, are more likely to suffer even more during the COVID-19 pandemic.

Given all these factors, we strongly believe that chronic pain conditions should not be treated as non-urgent conditions, and health-care professionals should feel morally and ethically obligated to offer interventional procedures and operations (be it spinal surgery or invasive neuromodulation), not in spite of the COVID-19 pandemic but because of it. We must take care that as a society we don't end up in Charybdis' whirlpool, which sucks up all other pathologies, by focusing on how we can avoid Scylla.

REFERENCES

1. WHO. Novel coronavirus (COVID-19) situation. 2020.
2. John Hopkins University Corona Resource Center. Updated August 3, 2020.
3. Lai C-C, Shih T-P, Ko W-C, Tang H-J, Hsueh, P-R Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges. *Int J Antimicrob Agents* 2020; 55:105924.
4. Liu Y, Li J, Feng Y. Critical care response to a hospital outbreak of the 2019-nCoV infection in Shenzhen, China. *Crit Care Lond Engl* 2020; 24:56.
5. National Health Interview Survey 2017.
6. Gaskin DJ, Richard P. The economic costs of pain in the United States. In: Institute of Medicine (US) Committee on Advancing Pain Research, Care, and Education. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington (DC): National Academies Press (US); 2011, Appendix C.
7. Dahlhamer J, Lucas J, Zelaya, C, et al. Prevalence of chronic pain and high-impact chronic pain among adults — United States, 2016. *MMWR Morb Mortal Wkly Rep* 2018; 67:1001-1006.
8. Murthy V H. Ending the opioid epidemic — A call to action. *N Engl J Med* 2016; 375:2413-2415.
9. Wilson N, Kariisa M, Seth P, et al. Drug and opioid-onvolved overdose deaths — United States, 2017–2018. *MMWR Morb Mortal Wkly Rep* 2020; 69:290-297.
10. National Center for Health Statistics. Mortality Data for 2018.
11. Higgins C, Smith B H, Matthews K. Comparison of psychiatric comorbidity in treatment-seeking, opioid-dependent patients with chronic pain versus without chronic pain. *Addict Abingdon Engl* 2020; 115:249-258.
12. Feingold D, Brill S, Goor-Aryeh I, Delayahu Y, Lev-Ran S. Depression and anxiety among chronic pain patients receiving prescription opioids and medical marijuana. *J Affect Disord* 2017; 218:1-7.
13. Stubbs B, Aluko Y, Myint P K, Smith T O. Prevalence of depressive symptoms and anxiety in osteoarthritis: A systematic review and meta-analysis. *Age Ageing* 2016; 45:228-235.
14. Rajkumar R P. COVID-19 and mental health: A review of the existing literature. *Asian J. Psychiatry* 2020; 52:102066 .
15. Hao F, Tan W, Li J, et al. Do psychiatric patients experience more psychiatric symptoms during COVID-19 pandemic and lockdown? A case-control study with service and research implications for immunopsychiatry. *Brain Behav Immun* 2020; 87:100-106.
16. Lei L, Huang X, Zhang S, Yang J, Yang L, Xu M. Comparison of prevalence and associated factors of anxiety and depression among people affected by versus people unaffected by quarantine during the COVID-19 epidemic in southwestern China. *Med Sci Monit Int Med J Exp Clin Res* 2020; 26:e924609.
17. Lerman S F., Rudich Z, Brill S, Shalev H, Shahar G. Longitudinal associations between depression, anxiety, pain, and pain-related disability in chronic pain patients. *Psychosom Med* 2015; 77:333-341.
18. Liddy C, Poulin P. A, Hunter Z, Smyth C, Keely E. Patient perspectives on wait times and the impact on their life: A waiting room survey in a chronic pain clinic. *Scand J Pain* 2017; 17:53-57.
19. Kumar K, Hunter G, Demeria D. Spinal cord stimulation in treatment of chronic benign pain: Challenges in treatment planning and present status, a 22-year experience. *Neurosurgery* 2006; 58:481-496; discussion 481-496.

