

A Case of Somatoform Disorder Due to COVID-19 Induced Trauma

Munkh Enkhbaatar^{1,2}, Tsagaankhuu Guntev³ Oyunsuren Davaasuren¹, Mongoljin Altanhuyag¹, Enkhtuvshin Regzedmaa¹, Oyungerel Ravjir⁴, Munkhtuya Lhagvajav¹, Narantuya Galdan², Naranzul Davaa⁵, Khishigsuren Zuunnast¹

¹Department of Mental Health, School of Medicine, Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia; ²Team of Psychotherapy, National Center for Mental Health, Ulaanbaatar, Mongolia; ³Department of Neurology, School of Medicine, Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia; ⁴Department of Infections Diseases, School of Medicine, Mongolian National University of Medical Sciences, Ulaanbaatar, Mongolia; ⁵Department of Tuberculosis Surveillance and Research, National Center for Communicable Diseases, Ulaanbaatar, Mongolia

Submitted: May 11, 2021

Revised: May 18, 2021

Accepted: August 5, 2021

Corresponding Authors

Munkh Enkhbaatar MD
Department of Mental Health,
School of Medicine, Mongolian
National University of Medical
Sciences, Ulaanbaatar 14210,
Mongolia
Tel: +976-9111-1094
E-mail: munkh@gtc.mn.ums.edu.mn

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/bync/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. Copyright© 2021 Mongolian National University of Medical Sciences

Objectives: The COVID-19 pandemic has led to mental health problems, such as phobia, anxiety, insomnia, and depression. We report the case of somatoform disorder due to psychological trauma associated with COVID-19 disease. **Method:** Diagnosis was based on mental state examination and the patho-psychological testing. **Results:** A 70 years old female presented many somatic complaints. She had 12 visits to a specialist during more than 4 months, 4 hospital admissions, and was involved in many tests and treatments, but with no beneficial results. On mental state examination and patho-psychological testing were found anxiety, depression, and somatization. **Conclusion:** On the basis of clinical features, the patient was hospitalized and effectively treated with a combination of antidepressant, anxiolytics, psychotropics, and psychotherapy.

Keywords: Malingering, Unexplained Symptoms, Pandemic-Induced, Anxiety, Depression

Introduction

WHO reported in late 2019 that cases of high-mortality infectious pneumonia were identified, were rapidly spread around the world, and declared that COVID-19 could be characterized as a

pandemic in March 2020 [1]. The first case reported in Mongolia was confirmed on March 9, 2020, and a domestic cluster outbreak occurred in November 2020. As of May 5, 2021, a total of 41,524 people became ill, and 130 died.

Health is of great personal value, and the COVID-19

pandemic has led to phobia, anxiety, insomnia, and depression among the population, especially in the most vulnerable communities, resulting on discrimination against infected and ill people in society [2].

In the current situation of pandemic which has resulted in simultaneous quarantine and loss of life and health, there are identified many cases of social discrimination, distancing, cold-heartedness, and suspicion during in cases of infection [3, 4]. Pandemic appears to be exacerbated by severe stress and stress is diagnosed in the International Classification of Diseases as a group of psychogenic (F4) psychiatric disorders relating to power, duration of stressors, and personal temperament. Psychogenic or stress-related psychiatric disorders have come in many clinical forms. One of them is pain, which persists in the absence of any physical illness, is often under diagnosed, unconfirmed by examination, lasts for a long time, and does not respond to treatment (F45.4) [5, 6].

We present to you a patient who suffered from a somatoform disorder due to psychological trauma associated with COVID-19 disease which we discovered while providing mental health care for the population during the pandemic. We obtained informed consent and permission to participate in the study from the patient and from her caregiver daughter. The informed consent was signed.

Ethical statement

The study proposal was reviewed and approved by the Medical Ethical Control Committee of the Ministry of Health, Mongolia (July 08, 2020. Number 172).

Case Report

A 70 years old female came to the outpatient clinic of the

Mongol-Japan Teaching hospital with complaints of recurrent discomfort around the back, flesh aches here and there which spread to the bladder, fever, a sense of squeezing, numbness of the fingers, darkening around the eyes, thirst, and constipation. She was hospitalized, seen by many doctors, and treated, but her pain did not go away. In the words of her daughter, "My mother doesn't like noise and entertainment, and she doesn't watch much television. She is a person who is easily offended, anxious, sensitive to light, does not like pungent odors."

Previous illness: Viral hepatitis in her youth. In 2018, gastric polyps were removed and Helicobacter pylori were detected.

History of Present Illness: From November 11 through the 18, 2020 she was hospitalized for evaluation, during which time she remained isolated and had distress and fear due to spreading coronavirus infection at the hospital. After leaving the hospital, she was under home isolation from November, 19 to December 07, 2020. On December 08, 2020, she returned to her province, where people from the city were isolated at their home for 14 days. A sticker saying "at-risk" was put on her front door, and she was called every day, and warned, "Don't leave your house. Are you home?" She felt very stressful, scared, and anxious. On December 10, 2020, she recalled, "Suddenly I felt uncomfortable and felt a tingling sensation around my arms. Since then, I have been in pain here and there, so I went to see my family doctor." From December 10, 2020, to March 11, 2021 she saw a cardiologist a total of 3 times, went to a family doctor 3 times, once to an province psychiatrist, 2 times to a neurologist, once to a traditional healer, and called an ambulance two times. There were a total of 12 visits to a specialist, an admission to the province hospital, to an InterMed hospital, to a Mungun-Guur hospital, and to an Ulaanbaatar sanatorium. During this time she was had an ECG, chest X-ray, abdominal ultrasound,

Table 1. Treatment and test parameters.

Tests	Results of evaluation on the first day of treatment	Treatments	Results of evaluation on the 7 th day of treatment
Spielberg-Hahn's test for anxiety	67 points	- Clomipramine 50 mg once a day for 5 days - Alprazolam 0.5mg once daily at 09.00 pm for 7 days, and from the 8 th day twice a day	63 points
FASES	6-8 points	- Individual psychotherapy 2 times - Treatment to improve the body's general resistance	3-5 points
Zung Depression scale	68 points	- Treatment to improve the body's metabolism	68 points

CT without contrast (January 28, 2021), and CT with contrast (January 30, 2021), and had 10 visits to a thermal massage bed (ceragem), and 6-7 visits to a lama and shaman.

No changes in instrumental or laboratory tests were found and no persistent diagnosis were made during the visits to the specialist or hospitals. Physicians diagnosed the patient with diagnosis such as chronic ischemia of the heart, organic sleep disorder, exacerbation of cervicothoracic radiculopathy with radicular syndrome, radiculopathy of the cervical spine, arterial hypertension, pain in the thoracic part of the spinal cord, lumbosacral plexus disorders, insomnia, neuropathy due to white matter of the trunk, and was most recently diagnosed by a consultant-neurologist DS: Depressive syndrome and referred to a psychiatrist.

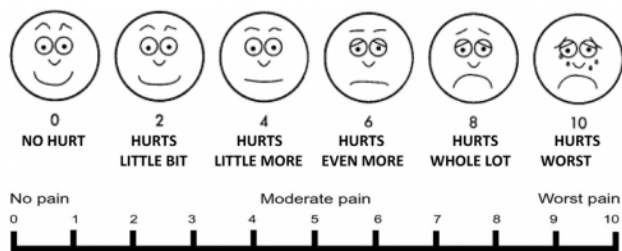


Figure 1. Wong-Baker FACES™ Pain Rating Scale.

Due to the above diagnosis, the patient was treated with Nitroglycerin, Aspirin, Ataris, Predizin, Clopidogrel, Panangin, Amlessa, Atenolol, Tebantine, Magnesium active, Melatonin, Concor, Diazepam, Bilobil, Neurorudin, Vitamin D, Magnes direct, Nolpaza, Aminocomplex, and Carbamazepine, and also treated by traditional medicament, acupuncture, massage, Daoist, Mongolian burns, foot baths, and red lights. At the same time, the pain was not relieved by taking a network pill, Tebantine, DicloPhenak, Diclo-Denk, and mixed Analgin and Dimedrol (antihistamine) 10 times, tramadol, ketonal (separately and combined), and the use of an injection of DicloPhenak 20 times.

Subsequently the patient was admitted to a psychiatric hospital on March 13, 2021, and at the time of admission, she had the following symptoms: All body skin sensitive, penetrating, indescribable pain, "yang" from the chest to the foot, and flaming pain. She said, "I feel like these feelings spread into the head, both hands, clavicle, armpit, groin, and ribs, all the body hurts, but even I don't know well. I don't know what to do, what to do about pain. I don't do anything but hurt. When I sleep it is

painless but I wake up at 5 o'clock and hurt. When I feel pain, I'm scared, the pressure rises, the heart aches, I get nervous, and sweat."

She was tested as follows when she was admitting to a psychiatric hospital from March 13 to March 22, 2021:

1. Pathopsychological tests: qualitative analysis of mental changes, personality, and projective tests were used. The patient showed signs of cognitive decline, monotonous, perseveration (repetitive thinking), behavioral changes, active negativism, aggression, and weakened self-criticism. Psychotherapy, persuasion, and hypnosis were recommended.

2. Results of some scales used for assessment of the patient's mental state (Table 1): Spielberg-Hahn's test for anxiety scored high anxiety with 67 points. Wong-Baker scale for pain (FACES) ranged severe pain from 6 to 8 points. Facial expressions were characterized by the intensity of the pain as "Painful" (Figure 1), a whole lot of pain. Zung Depression scale rated as moderate depression with 68 points. Geriatric Depression scale rated as without depression with 3 points. Screening for unexplained somatic complaints and sleep problems developed by the WHO was assessed positively. Mini-mental exam (Folstein) scale rated as without cognitive decline or delirium with 27 points.

She was diagnosed with DS: F45.4 Persistent somatoform pain disorder, and anxious syndrome.

The treatment consisted of alprazolam 0.5mg once daily at 09.00 pm for 7 days, and from the 8th day twice a day (1 tablet at 09.00 am, and 1 tablet at 09.00 pm), and clomipramine 50 mg once a day. She was treated to improve the body's general resistance and metabolism, and underwent individual psychotherapy twice.

On re-examination on the 7th day of treatment, the patient said that her pain was reduced with medication and that she was sleeping at night. The anxiety score on the test was reduced by 4 points to 63, and the Wong-Baker rating (FACES) ranged from 3 to 5 with facial expressions ranging from "hurts a little bit" or "hurts a little more."

She was hospitalized for 10 days and was discharged from the mental hospital with recommendations to continue to take psychotropics at home, continue involvement with psychotherapy, and to re-examine after 14 days.

Discussion

Unexplained somatic complaint is a mental disorder related to psychological stress and is more common in women [7], and the main complaint is persistent, severe pain for 6 months or more. It has many clinical forms and can lead to disability [8]. Persistent somatoform pain disorder or chronic pain, a clinical form of unexplained somatic complaints, is caused by psychosocial problems, is not related to neuropathy of any organ or organic disease, and can lead to mental and social problems [9, 10]. Persistent somatoform pain disorder is referred to as psychological pain, functional pain, non-organic pain, and atypical pain [11]. According to the WHO (1992), pain related to stress is caused by psychological or emotional distress, but the pathway of pain remains uncertain and remains one of the problems in medicine [12].

According to a study conducted among the population of Ulaanbaatar (n = 1048), 31.9% had unexplained somatic complaints, 65.7% were women by gender, and most of them were 20-39 years old by age group [13]. Researchers Jargal B., et al (2015) characterized somatoform patients (n = 221) as repeatedly going to specialized doctors and hospitals for various medical examinations and tests which are economically inefficient [14]. As a result of an epidemiological study for the most common mental disorders among populations conducted in 2013, 11.9% of 1403 people aged 18-64 had unexplained somatic complaints, Of those, 109 cases aged over 60 [15].

The respondent of our case study was a 71-year-old woman, who underwent quarantine for COVID-19 disease, and suffered from persistent somatoform pain disorder due to psychological trauma relating to isolation at home, a warning put on the front door, and strong control every day. Clinically, psychological pain can occur in any organ [16], but 32% of the pain is in the back, 24% in the joints, 16% in the head, 15% in the muscles, and 13% in the abdomen [17]. The severity of pain can be measured by SPS (Stanford pain Scale), and Wong-Baker scale for pain (FASSES) [18, 19]. For our patient, the pain is felt all over the body and spreads to the head, clavicle, arms, neck, armpits, and groin, and was feverish, throbbing, and seemed convulsive. She did not know the type of pain, when it hurt, when the pain subsided, and did not experience pain during sleep.

The specificity of psychological pain is uncertain, unlocated, the pain does not affect sleep, the intensity of the pain depends

on the mood, and it is unaffected by analgesic treatment [19, 20]. In some cases, the use of alcohol, drugs, or painkillers to relieving pain leads to dependence [21]. In this case, the pain was not bad at night, it was painful to wake up in the morning, and though the painkiller treatment was for 4 months, it was ineffective. In clinical practice, differential diagnosis is important for physicians because neurological pain can occur after injuries or surgery [22].

As in our patient, she had 12 visits to specialists over more than 4 months, 4 hospital admissions, and was involved in many tests and treatments, but with no effective results. It was similar to the result 7000 people in the United States who went to the doctor 8 million times for back pain and lost their ability to work and spent 10 million USD [8]. According to the review, depression is the most common ailment combined with psychological pain [8, 10, 12]. Our patient tested positive on anxiety and depression scales and assessed positively on screening questionnaires for sleep problems and unexplained somatic complaints developed by the WHO. When the patient was diagnosed by a psychiatrist and hospitalized, there was a positive reduction in pain intensity in 6 to 7 days and a slight decrease in anxiety due to treatment with the combination of antidepressant, anti-anxious psychotropics, and psychotherapy. As seen in the result of the treatment of this patient, the "gold standard" for the treatment of psychological pain syndrome is consistent with the effectiveness of antidepressants, especially fluoxetine and amitriptyline [12], in combination with psychotherapy and hypnosis [23]. In this case, the psychological pain lasted for more than 4 months, and treatment still continues now at home.

Conflict of interest

The authors have no conflict of interest.

Acknowledgments

I would like to thank the staff of the Department of Mental Health, School of Medicine, Mongolian National University of Medical Sciences, and the doctors of the National Center for Mental Health for their cooperation in diagnosing and treating this case.

References

1. Nyamdavaa P. A Pandemic. *Mongolian J Infect Dis* 2020; 4: 1.
2. Bao Y, Sun Y, Meng S, Shi J, Lu L. 2019-nCoV epidemic: address mental health care to empower society. *Lancet* 2020; 395: 37-8.
3. Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styra R. SARS control and psychological effects of quarantine, Toronto, Canada. *Emerg Infect Dis* 2004; 10: 1206-12.
4. Reynolds DL, Garay JR, Deamond SL, Moran MK, Gold W, Styra R. Understanding, compliance and psychological impact of the SARS quarantine experience. *Epidemiol Infect* 2008; 136: 997-1007.
5. Byambasuren S. Somatoform disorders, neurasthenia. *Psychiatry*. 2th ed. Ulaanbaatar, Mongolia: Selengepress; 2007: p 627-9.
6. World Health Organization. Mental and behavioral disorders. *International Classification of Diseases*. 1st Edition. Ulaanbaatar, Mongolia: 2013: p 240-1.
7. Popov YV, Vid MD. Somatoform disorders. *Contemporary clinical psychiatry*. 1st Edition. Moscow, Russia: 1997: p 227-9.
8. Sadock BJ. Somatoform Disorders. *Synopsis of psychiatry* 1994; 436-8.
9. Samohvalova VP. *Course on psychiatry*. 1st Edition. Moscow, Russia: Simferopol; 2000: p 311-12.
10. Dunne FJ. Depression and pain: is there a common pathway? *British Journal of Medical Practitioners* 2011; 4: 411.
11. Gagliese L, Katz J. Medically unexplained pain is not caused by psychopathology. *Pain Research and Management* 2000; 5: 251-7.
12. Danilov AB, Isagilyan ED, Mackaschova ES. [Psychogenic pain]. *Zh Nevrol Psikhiatr Im S S Korsakova* 2018; 118: 103-8.
13. Ayushjav B, Tuya B. Report of screening survey for determining mental state. Ulaanbaatar, Mongolia: Selengepress; 2006: p 23-6.
14. Jargal B. Somatoform disorder aspects [dissertation]. Ulaanbaatar, Mongolia: Mongolian National University Medical Sciences, 2015.
15. Mongolian National University of Medical Sciences. *Epidemiology of most common mental disorders*. Ulaanbaatar, Mongolia: 2019: p 83-8.
16. Molina OF, Santos ZC, de Paula N. Psychogenic orofacial pain: literature review, development of a diagnostic questionnaire and three cases report. *Cadernos UniFOA* 2017; 7: 81-92.
17. Meduniver. Psychalgia. Causes of mentality. Predisposing factors of mentality [accessed on 21 June 2021]. Available at: <https://meduniver.com/Medical/Neurology/205.html>.
18. Komsomolskaya Pravda. Pain dyndrome, its causes and ways to reduse [accessed on 01 December 2020]. Available at: <https://www.kp.ru/guide/bolevoi-sindrom.html>.
19. Vein AM, Danilov AB. *Pain syndrome in neurological practice*. 1th ed. Moscow, Russia: MED press; 2001: p 103-8.
20. Lim LE. Psychogenic pain. *Singapore Med J* 1994; 35: 519-22.
21. Chhabria A. Psychogenic Pain Disorder--Differential Diagnosis and Treatment. *J Assoc Physicians India* 2015; 63: 36-40.
22. Hill RJ, Chopra P, Richardi T. Rethinking the psychogenic model of complex regional pain syndrome: somatoform disorders and complex regional pain syndrome. *Anesth Pain Med* 2012; 2: 54-9.
23. Orlando G. Pain management using the power of the mind. *JOP* 2009; 3: 174-8.