

The use of Pregabalin in Intensive Care Unit in the Treatment of Covid-19-related Pain and Cough

Sir,

Pain causes rapid and shallow breathing, which increases respiratory workload and oxygen consumption. Thus, in critical novel coronavirus disease 2019 (COVID-19) patients with respiratory failure, pain can negatively affect the course of the disease.

In this article, we evaluated the effects of pregabalin use in the treatment of two patients with COVID-19 pneumonia, who were followed up in the intensive care unit (ICU) with pain and cough complaints.

CASE 1:

A 77-year male COVID-19 patient had sharp, stabbing and severe chest pain complaints that increased on breathing and coughing. Analgesic treatment was arranged as paracetamol (3000 mg/day) and tramadol (300 mg/day). Dexmedetomidine (0.8 µg/kg/h) infusion was started for sedation in the anxious and agitated patient. In addition, 300 mg/day pregabalin was added to the treatment of the patient, who could not tolerate the prone position due to chest pain and cough. Approximately three hours after the first dose of pregabalin, the patient became able to tolerate the prone position and remained in this position for approximately 6-8 hours with increased SpO₂ values. In addition, the patient stated that there was a great reduction in cough complaints and 60% reduction in chest pain.

CASE 2:

A 55-year male was tachypneic and hypoxemic with diffuse myalgia and severe cough because of COVID-19. As analgesics, tramadol and paracetamol were administered, the patient could not tolerate non-invasive mechanical ventilation (NIMV) due to severe cough also and could not stay in the prone position due to myalgia. After adding pregabalin 300 mg/day to the treatment, the patient's cough complaints decreased by 80%. NIMV and prone position treatments were successfully applied, as the patient's myalgia complaints decreased significantly.

When these cases were evaluated, we preferred to use pregabalin primarily for pain complaints of nociceptive character and severe cough attacks. Pregabalin is a versatile drug with analgesic, anxiolytic and sedative properties. In addition to these properties, the important advantages of pregabalin are minimal respiratory depression effect, minimal drug-drug interaction, and a negligible metabolism.^{1,2} Although pregabalin is mainly used in the treatment of neuropathic pain, it has been

shown to reduce pain scores when used in acute postoperative pain.^{2,3} Pregabalin is also used in the treatment of chronic cough.⁴ Based on these features and our observations, the use of pregabalin as an adjuvant agent in the treatment of pain and cough in COVID-19 patients in ICU may be considered.

CONFLICT OF INTEREST:

The authors declared no conflict of interest.

PATIENTS' CONSENT:

Informed consent were obtained from all the patients to publish the data concerning these cases.

AUTHORS' CONTRIBUTION:

SP: Concept, design, definition and intellectual content, literature search, data acquisition, data analysis, and manuscript preparation and editing.

CG: Concept, definition and intellectual content, literature search, data acquisition, data analysis, and manuscript preparation and editing.

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REFERENCES

1. Ben-Menachem E. Pregabalin pharmacology and its relevance to clinical practice. *Epilepsia* 2004; **45**(6):13-8. doi: 10.1111/j.0013-9580.2004.455003.x.
2. Gajraj NM. Pregabalin: Its pharmacology and use in pain management. *Anesth Analg* 2007; **105**(6):1805-15. doi: 10.1213/01.ane.0000287643.13410.5e.
3. Zhang J, Ho KY, Wang Y. Efficacy of pregabalin in acute postoperative pain: A meta-analysis. *Br J Anaesth* 2011; **106**(4):454-62. doi: 10.1093/bja/aer027.
4. Vertigan AE, Kapela SL, Ryan NM, Birring SS, McElduff P, Gibson PG. Pregabalin and speech pathology combination therapy for refractory chronic cough: A randomized controlled trial. *Chest* 2016; **149**(3):639-48. doi: 10.1378/chest.15-1271.

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