

Letter to Editor: COVID-19- or Tramadol-induced Seizure: A Differential Diagnosis in Young People



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Letter to Editor

Coronavirus disease 2019 (COVID-19) was first declared in December 2019 from Wuhan, China [1, 2]. It then has been reported a pandemic in March 2020 by the World Health Organization [3]. Clinical features of COVID-19 are different from asymptomatic to mild to moderate symptoms, such as fever, headache, myalgia, sore throat, anosmia, cough, fatigue headache, hemoptysis, and dyspnea to the life-threatening complications, including shock, pneumonia, acute respiratory distress syndrome, myocarditis, myocardial infarction, acute kidney injury, multi-organ failure, and even death [1, 2]. One of the possible routes for central nervous system (CNS) involvement by COVID-19 is diffusing through the respiratory tract to the olfactory bulb and the formation of blood clots in the CNS [1, 4]. COVID-19 has been associated with neurological complications, such as anosmia, stroke, paralysis, cranial nerve deficits, encephalopathy, delirium, transient ischemic attack, meningitis, acute stroke, encephalitis, and seizures [4]. Tramadol is a new synthetic and analgesic opioid that is used to treat acute and chronic pain worldwide [5]. In recent years, tramadol abuse and overdose have increased in young adults in Iran [3]. The main side effects of tramadol poisoning are nausea, vomiting, constipation, tachycardia, headache, ataxia, dizziness, drowsiness, somnolence, and loss of consciousness [6, 7]. In

addition, other important life-threatening complications due to tramadol poisoning are rhabdomyolysis, renal and liver failure, pulmonary arrest, CNS depression, and seizures [8-10]. Seizures are important complications of both tramadol abuse and COVID-19. Therefore, for patients, especially young people suspicious of tramadol-induced seizures with no history of seizures and urine toxicology screen tests, the possibility of development of COVID-19-induced seizures should always be taken into account.

Ethical Considerations

Compliance with ethical guidelines

This letter to the editor did not require a consent form and an ethical code.

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Author's contributions

All authors contributed to preparing this article.

Conflict of interest

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