

NSAIDs' Use In Covid-19 Disease

Covid-19 Hastalığında Nsaid'lerin Kullanımı

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Dear Editor,

Recent studies suggest non-severe and severe stages of SARS-CoV-2 infection. During the incubation and non-severe stage of the virus, the immune system eliminates the virus and prevent its progression which non-steroidal anti-inflammatory drugs (NSAIDs) may also interfere with immune system. The severe stage includes lung inflammation where it is associated with acute immune response and cytokine storm, which may raise questions regarding the use of NSAIDs.¹

According to the reports of The French Regional Pharmacovigilance Centers (CRPVs) based on according to clinical, experimental, pharmacological, and epidemiological data in 2019, NSAIDs (especially ibuprofen) aggravates bacterial infection (in particular pulmonary infection). CRPV suggest use of the NSAIDs should be avoided in the symptomatic treatment of complications such as fever, pain, and myalgia that in case of infection.²

In hospitals of Dutch University, thrombotic complications were observed in 31% of 184 SARS-COV-2 infected patients hospitalized in intensive care unit, and pulmonary embolism made up of 81% of these complications.³ Arjomandi et al. stated that there is no definitive link between ibuprofen and pulmonary embolism, and the existing data are conflicted. They argued that it is not known how ibuprofen interacts with SARS-CoV-2 mechanism, nonetheless high doses of ibuprofen should be avoided in patients with suspected thromboembolic events.⁴ Furthermore, Committee on Human Medicines in UK reports there is no sufficient data on the use of ibuprofen and its association with COVID-19, or worsening symptoms. This is important since ACE2 receptor is a gateway for SARS-COV-2 to enter into the human body.⁵

In conclusion, concerns have arisen that NSAIDs interact with COVID-19 disease or aggravates symptoms. There are no extensive and comprehensive clinical studies showing pros and cons of NSAID use in SARS-COV-2 positive

patients. It is important for COVID-19 patients to avoid high doses and be aware of side effects of ibuprofen.

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