**An introduction to the effect of ginger derivatives on COVID-19**

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**Statement of Problem:**Throughout human history, pandemics has always been considered as a leading cause of death. In 2019, with the emergence of COVID-19, many researchers attention was directed toward using natural products as a treasure trove of bioactive compounds for drug development and disease treatment. Ginger, "Zingiber officinale," is one of those plants which has a prominent place in traditional and modern medicine.

**Research Purpose:**Considering the favorable effects of ginger extracts in various inflammatory and viral diseases, the aim of this study was to examine the performance of the constituents of this remedial plant in the face of the COVID-19 pandemic.

**Research Method: All the scientific reports and academic manuscripts regarding ginger derivatives and their role in COVID-19, published from 2018-2023, were collected from PubMed and diligently classified.**

**Results and Conclusion:**Studies indicate that ginger has more than 400 chemical structures, such as phenolic compounds and terpenes, with a wide range of activities. Considering the critical role of oxidative stress and inflammation in the progression of COVID-19, ginger derivatives can indirectly affect the reduction and treatment of the disease. Among them 6-shogaol is of great importance according to its antioxidant and anti-inflammatory properties. On the other hand, *In silico* studies have shown direct interactions between some ginger constituents and different components of COVID-19. Gingerenone A, with its high affinity binding to the D614G SARS-CoV-2 spike protein, and 8 or 10-gingerol showing substantial arrangements at the dynamic site of the SARS‑CoV‑2 main protease receptor, are derivatives which may directly intercept the virus by its neutralization. In conclusion, ginger constituents may both directly and indirectly block the pathologic activities of the coronavirus. These data may help developing new anti-viral therapeutic strategies against COVID-19.

**Keywords:** COVID-19, Ginger, Anti-inflammatory, Antioxidant