Covid-19 A Comprehensive Review of Signs, Symptoms, Diagnosis, and Treatment Strategies

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Abstract*: The coronavirus disease 2019 (COVID-19) pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has significantly impacted global health. This review aims to provide a comprehensive overview of the signs, symptoms, diagnosis, and treatment modalities of COVID-19. The clinical presentation of COVID-19 varies widely, ranging from asymptomatic or mild symptoms to severe respiratory distress and multiorgan failure. Common symptoms include fever, cough, fatigue, and dyspnea, with less frequent symptoms such as anosmia, ageusia, and gastrointestinal symptoms. Diagnosis primarily relies on reverse transcription-polymerase chain reaction (RT-PCR) testing of respiratory specimens. However, imaging modalities such as chest X-ray and Antibody Test Antigen test in diagnosis, especially in cases with atypical presentations. Treatment strategies include supportive care, antiviral therapy, and, in severe cases, and other intensive care measures. The development and distribution of vaccines have been pivotal in controlling the spread of the virus. Despite significant progress in understanding and managing COVID-19, ongoing research is crucial to refine diagnostic strategies, develop effective therapies, and improve patient outcomes. Antiviral drugs, such as remdesivir, poxolovid, molonupiravir, have been widely used to inhibit viral replication and reduce the severity and duration of symptoms. Immunomodulators, including tocilizumab have been used to target specific pathways involved in the hyperinflammatory response seen in severe COVID-19. Monoclonal antibodies, such as casirivimab/imdevimab and sotrovimab, have been employed for passive immunization to neutralize the virus and reduce the risk of severe disease progression*

Keywords: Covid-19, Sign& Symptoms, Diagnosis, Treatment