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Chapter 12

Covid-19: a novel challenge to human immune genetic machinery

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Introduction

COVID-19 also called as corona virus emerged in China in December 2019 and turned into a global pandemic in a short period of time (Corman et al., 2020). This viral infection manifested in humans as a respiratory infection with the signs and symptoms of fever, cough, generalized body aches, and fatigue. Some people presented with gastric upset like diarrhea and respiratory symptoms ranging from mild to severe that led to pneumonia and even death in severe cases (Wang, Horby, Hayden, & Gao, 2020).

Patient presentation

Usually, the Covid-19 patient presents with the signs and symptoms of respiratory illness. Cough commonly dry cough associated with myalgias and sometimes breathing difficulties due to decrease in oxygen saturation rates are present in these patients. Some people show fever with body aches while some are relatively asymptomatic (Wang, et al., 2020; Zhu et al., 2020). The severity of disease may sometimes worsen especially in the presence of associated comorbidities and can lead to metabolic disturbances, chest tightening, and secondary complications. Some people show severe electrolyte disturbances and