

Are Patients on Cyclophosphamide at Higher Risk of Covid-19 Complications?

Abstract

Coronaviruses are closely related virus causing several types of respiratory tract infections ranging from common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). There are many other ways in which Covid-19 will impact the existing public health issues. With the rising number of covid19 cases, it has been reported that people with the weaker immune system are at higher risk. We identified the mechanism of action of cyclophosphamide and its impact on the lung. Pulmonary side effects associated with cyclophosphamide are rare and dose-related. They manifest as early-onset pneumonitis, in patients with symptoms especially like cough and dyspnea. Acrolein in cyclophosphamide is the main component linked with the toxic effect. We hypothesize that use of cyclophosphamide, an antineoplastic agent and immunosuppressive agent used in treating many cancers and autoimmune disorders (like rheumatoid arthritis and ANCA vasculitis), induces severe lung toxicity which can be one of the contributing factors for the increased risk of COVID 19 complication. These factors are to be recognized to improve prevention and control of the disease.