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CORONAVIRUS : A TREATMENT FOR COVID -19 PNEUMONIA

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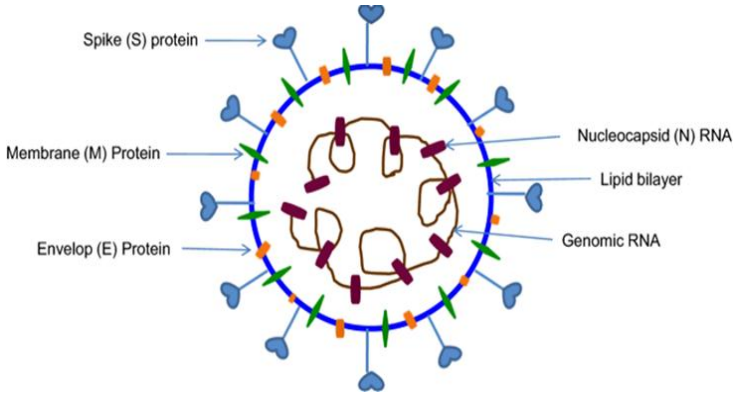
Abstract

Human coronavirus was first identified by a scientist in 1965; It is caused by a common cold and cough. After a decade, researchers are found in group of similar viruses such as human and animals. Corona viruses are named as crown like appearance.

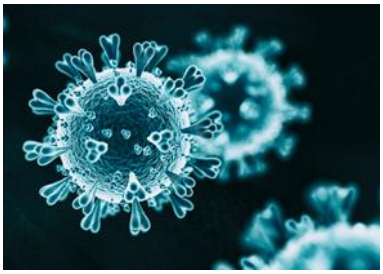
***Keywords**: Corona Virus, treatment, covid-19, pneumonia*

SHORT COMMUNICATION

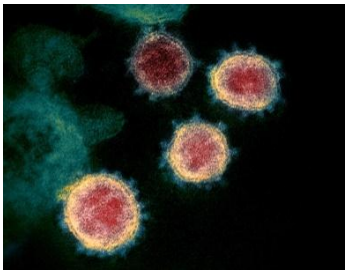
Human coronavirus was first identified by a scientist in 1965,It is caused by a common cold and cough. After a decade, researchers are found in group of similar viruses such as human and animals. Corona viruses are named as crown like appearance. Expert are say that SARS-Cov-2 are originated in bats.SAR-CoV-2 made the jump to humans at one of the Wuhan's open-air wet markets. Several customers buy fresh meat such as fish, cobras, wild boars, including various animals that are killed on the spot. various wet markets in china sell wild and banned species like cobras, wild boars, and dogs. Crowded conditions can let viruses from different animal contain the swap genes. Virus changes so much it can start to spread and infect the people. As SARS-CoV-2 spread both inside and outside china, it infected people who have no direct contact with animals.It means the virus is transmitted from one human to another. It is now spreading in the U.S., India, China and all over the world meaning that people are unwittingly catching and passing on the coronavirus. This growing worldwide transmission is what is now a pandemic.



Structure of Coronavirus



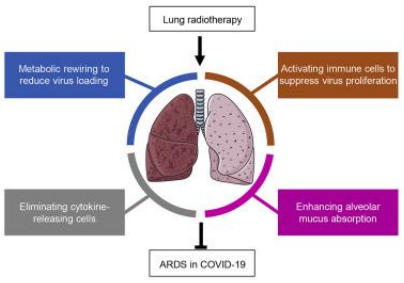
(A)



(B)

Both A & B are coronavirus Structure

The covid-19 pandemia is effecting the people in whole over the world. Maximum patients suffering from the respiratory disease progress to an acute respiratory distress syndrome(ARDS). Mainly lung is affected, lung prevents the proteinaceous exudates, pneumocyte, hyperlaxia, alveolar distress, go along with monocytes and lymphocytes alveolar, inflammatory infilteration. These symptoms are called SARS-COV-2 pneumonia. They are associated with the high mortality i.e.high risk categories older age underlying various diseases such as cardiovascular disease,hypertension,diabetes and inflammatory Dimer D/Ferritin is high levels.The value of d-dimer as a biomarker of venous thromboembolism episodes in patients with small vessel vasculitis is low[1].The lose dose radiation therapy, a potential treatment was discussed by Kirkby and Mackenzie and they suggested to re-examine the unremembered therapeutic approach[2].The alluring reports from the early twenty century observed by high efficacy of this method to treatment of pneumonia by X-ray[3-4]. The transmission rate of the virus i.e. COVID-19 is very high rapid hike in the number of infection,resulted in unprecedented strains on the healthcare worker in all over world continue struggle to treat the COVID-19 pneoumonia.The whole review article clearly showed that the low doses from the kilovoltage X-ray reduced the mortality of pneumonia from approximate 30 percent to 10 percent in average[5].We would like to attention a radiotherapy to the potential for low doses(<100cGy) very low LET radiation to treat the Pneumonia i.e. viral pneumonia as possible therapy for patients of COVID-19.Generally doses were reported in the 20 –few hundred Roentgen range.They lung doses is approximately in the ten<100cGy range.Some paper reports mentionted rapid symptom relief on the some hour[6-7]. Low dose radiation therapy(LDRT) reduce the acute pase of pneumonia is a approximately half suggested in the animal model[8].In the case of viral infection ,viruses directly trigger immune cells to synthesize the pro-inflammatory cytokines and chemokines[9]. The doses of≥ 200cGy tends to the effects pro-inflammatory.



In radiation therapy, triggering some common toxicities are observed. Recently work shows low doses approximately(<100cGy) encourage anti-inflammatory properties[10-11].Low dose radiation therapy(LDRT) is used decreasingly in the limited inflammations in some diseases such as osteoarthritis and not in a cytokine storm[12].Anti-inflammatory effect of LDRT may not be effective controlling the tornado in the COVID-19 pandemia, limited knowledge about the interaction of LDRT and viruses. Some research studies have been reported ,after radiation therapy increases the activation, uptake and spread of the viruses[13-16].

LDRT modify the inflammatory environment in the lung of SARS-COV-2 IL-6 related patients of pneumonia[17].Low dose radiotherapy for pneumonia has been used for the 20s of the last century with the hopeful result[18] specially in the interstitial viral pneumonia.Oppenheimer[19] treated the 56 patients with interestial pneumonia at doses of approx 0.5Gy .Patients treated with low dose radiotherapy in the first two weeks i.e. 14 days responds successfully but after the two weeks i.e. 14 days responses were around approx 50% animal modes suggested that LDRT treatment for the influenza virus the effectiveness of this treatment is approximately half of the experimental cases[20].

Low dose radiation therapy (LDRT) is a cost effective as well as non-toxic therapy generally available in most common hospitals. Low dose radition therapy to the whole lung survey should be under clinical trials[21] to patients in the initial stage of the SARS-COV-2IL-6Pneumonia,they are associated with the advanced age and high rish catagories such as diabetes, hypertension, cardiovascular disease and hyperinflammation markers is elevated of Dimer D and Ferritin. It is used for a larger number of patients that will suffering from those diseases and currently not received any specific anti-IL- therapies ICUs in the low and middle income countries.

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