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CORONA VIRUS- A DESTRUCTIVE EVIL

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ABSTRACT

As we all know the eruption of coronavirus disease-19 caused by the SARS (severe acute respiratory syndrome). It is a contagious viral infection due to the "novel (new) strain" of coronavirus (CoV). Covid-19 thus far killed over 2.20 million people and infected over 100 million people worldwide. Under this article, a review has been done on studies conducted on human beings with corona virus disease.In india thus far it killed over 1.5 lakh and infected over 1 million people and the most affected district is Maharashtra with more than 20 lakh infected case & over 50 thousand deceased. General features in patient developing to covid-19 include dyspnea, hyperpyrexia (high fever), irritation of throat (sore throat), ansomnia (loss of smell) and ageusia (loss of taste and in past research researcher found that women had diarrhea also. Although, covid-19 has low severity and more mortality as compared to SARS even so it is more transmitting and affects more elderly as well as co-morbidity disease condition individuals as compared to young .In current various countries schedule their covid-19 vaccine. The current paper is to through light on some of the concepts related to COVID-19.

KEYWORDS: Coronavirus disease, Eruption, Infection, Transmission, Elderly age, Co-morbidity condition.

INTRODUCTION

Coronaviruses are enwrap as a non-segmental positive sense RNA viruses member of "coronavirdiae" & order "Nidovirales" and widely deal out in an individual and other types of mammals (Bats). Dr. Yeshwanth etal .studied the outbreak of a Coronavirus.At present it is assume that the "incubation period" of this virus is ranging from 2-10 days. By now we all are familiar with coronavirus disease which is stumble in December 2019 and it is responsible for worldwide pandemic. As far the main country affected has been USA & India but it has transmitted to others countries across the universe to be a different level.The virus primarily mentioned as 2019-nCoV and generally termed as the "Wuhan coronavirus". WHO called it as COVID-19 because it does not relate to any terrestial area, animal, an individual, or group people entirely can lead to stigma. The virus formally termed as "severe acute respiratory syndrome coronavirus-2(SARS-CoV-2)",which is hereditically related to severe acute respiratory syndrome coronavirus (SARS CoV). Coronavirus are the wide family of viruses which usually lead to gentle to cautious upper respiratory tract(URT) illness such as "flu & respiratory distress". Majority of the virus spread between animals like pigs, camels, bats and cates[1]". MB Mawale etal. Studied the - SARS-CoV and MERS-CoV & Coronavirus (COVID-19): Origin and Characteristics". In 2003, the Chinese peoples experienced a threat from a virus causing severe acute respiratory syndrome in "Guangdong province". The infected patients had pneumonia manifestated with a diffused alveolar injury which leads to "Acute respiratory distress syndrome (ARDS)".

Transmission and Ill Effects

According to the researchers severe acute respiratory syndrome (SARS) primarily showed in the Guangdong,china & then transmitted quickly throughout the universe. The researchers found that bats are the genuine hosts and mechanical ventilation are supporting to the 20-30 percent of the infected clients. The death rate is about 10 percent and person to person airborne transmission was recognized & by embracing the strict public measures the care was taken. The characteristics of this virus are- Coronavirus infected all ages but there are two groups of individuals at a better risk of causing

severe covid-19. Individual those are over 60 years old and individual with co-morbidity disease conditions such as cardiovascular disease, diabetes etc.[2]

Dr.Nareshsen et.al. studied the Integrated broad spectrum approach and combined strategy of world health system with public support to break pandemic Coronavirus disease. For breaking the pandemic of Covid-19 there should be an integrated broad –spectrum is necessary. This integration should include all the pathies such as Allopathy, Ayurveda, Homeopathy etc., in collaboration with all medical specialities. The main focus of primary prevention should be a strict mandatory lockdown of 35-40 days with self-isolation of every individual & safe social distancing should be maintained and quarantine centres should be developed for suspected cases & others in periphery of every city of every state. In public care for preventing infection and breaking the chain of viral transmission there should be a strict lockdown, self isolation, social distancing, use of face cover etc., is necessary. In hospital care periodic rotating duty schedule for staffs and doctors for relaxation, PPE, clean wards UV light, hydrogen peroxide vapor, moist heat with proper ventilations etc., Some herbal/ayurveda medicine are being used for covid-19 are Osimum tennuiflorum, osmium viridae, cordiflora tinospora, cinnamomum camphora etc,. Artemisia annua is a alternative of hydroxychloroquine having artimisin, terpenoid, flavonol & free radical like epoxide as providing anti-inflammatory, reducing cytokines, increase lysosomal Ph & decrease protease activity.[3]

Knowlegde and Impact on Health Workers

Mohammed riyaz etal. Studied the Awareness of COVID-19 in healthcare professionals-Assessment done by various questionnaires. The aim of the study were to identify the health care professional are aware of corona virus infection with the help of questionnaires and its implication on the health of individuals. Questioners were formulated and it was send to the medical health care professional. After obtaining the consent, the parameters were assessed using a questionnaire format. One of the question was are you aware of Indian council of medical research(ICMR) guidelines and it was observed that 51 percent we well versed with ICMR guidelines & 23 percent of patients were not aware of clear ICMR guidelines, & 26 percent were confused with multiple guideline issued by various infection control authorities. Other question was how frequency you wash your hands? Mostly everyone believed that washing hand is to be done.[4]

‘’Angiotensin converting enzyme-2 [ACE-2]” is an enzyme which is attached to the cell membrane that locates in the lungs, arteries, heart, kidney . Angiotensin converting enzyme-2 plays a crucial role in heart physiology. Dr.khushbu patel etal. Studied the Review on RAAS inhibitors may improve prognosis in hypertensive patients with COVID-19. Patient with co-morbidities disease conditions such as hypertension and cardiac failure disorder are at increased risk of severe covid19 disease which is caused by the “Severe acute respiratory syndrome [SARS] corana virus-2. Angiotensin converting enzyme-2 (ACE-2) is also participated in development of blood pressure & diabetes mellitus. The binding between spike protein of virus to the Angiotensin converting enzyme-2(ACE-2) & resulting in the SARS-CoV-2 (severe acute respiratory syndrome corona virus-2) infection carried out, which is expressed in heart & lungs. Corona virus mainly enter into the alveolar epithelial cells, which causing respiratory related symptoms. The respiratory symptoms are more serious in heart disorder clients & secretion of angiotensin converting enzyme-2 is more in cardiac patient compared to normal person. Researchers found that patient with coronavirus disease -19, the antihypertensive therapy i.e, ACE (angiotensin converting enzyme) inhibitors or the angiotensin receptor blockers shown safely & potential effects which are carefully considered. According to researchers ,In case of patient with coronavirus disease -19 and hypertension (high blood pressure) who are taking an “ACE Inhibitor or Angiotensin Receptor Blocker” should switch to the another antihypertensive drug remains disputed.[5]

Ill Effects of Virus

Since the eruption of coronavirus disease-19 from Wuhan, china in December,2019 it has become a worldwide pandemic in an alarming pace. However, it is primarily a respiratory illness, it has been found to have the tendency to cause neurological symptoms. Amit ranjan barua etal. Studied the review on neurological profile in COVID-19. Earliest, it was thought that coronavirus firstly affects the respiratory system, but as COVID-19 cases continued to rise across the world , the medical community started seeing an increasing number of reports of neurological symptoms. Influenza, measles & other respiratory viruses can attack the CNS. Other coronaviruses have also be found to attack the nervous system and leads to neurological diseases. Related seasonal coronavirus, human coronavirus OC43[HCoV-OC43], Typically causes mild respiratory manifestations but can also leads to encephalitis in humans. In the same way middle east respiratory syndrome (MERS) & severe acute respiratory syndrome viruses (SARS) can lead to the neurological disorders. It has been guess that COVID-19 causes 6-36 percent incidence of neurological events during the course of the illness.[6]

Sushmita Das studied the Plasma rennin activity and COVID-19 infection: friend or foe?. Disputes have appeared regarding the effect of RAS[Renin-angiotensis –system] inhibitors on the ACE-2 (Angiotensin converting enzyme-2) regulation & SARS-CoV-2 (Severe acute respiratory syndrome- coronavirus-2) infection continuance in this pandemic. Some countries including India reporting the Severe acute respiratory syndrome- coronavirus-2(SARS-CoV-2) infection in huge numbers of the asymptomatic carriers. Several organs of the human body are reported to be affected by

the virus with varying degrees of severity as lungs, heart, kidneys etc. Besides lungs, a current report suggest that human kidney is targeted by the Severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infection as the virus was found in kidney tubules of the sample of autopsy. A retrospective cohort study of 191 patient showed that covid-19 patients with low blood pressure are more susceptible to acute kidney injury. In context of covid-19 & Renin- "Renin" is relaeased into the circulation by the kidneys and rate limits angiotensin-2 production to control cardiovascular, pulmonary & renal function via renin angiotensin system. Plasmarenin activity is primarily controlled by differential handling of renal sodium-potassium cations. A study has identified convince hypokalemia in coronavirus disease-19 patents.Researcher assume that low plasma renin activity decreases the risk of lung invasion by the Severe acute respiratory syndrome-coronavirus-2(SARS-CoV-2) and low plasma renin activity may lead to low conversion of angiotensinogen into angiotensin 1 & later to angiotensin 2.[7]

Preventive Strategies

Namita etal. Studied the topic "Covid19 Pandemic :Impact on masses & prevention knowhow."At present the whole universe is experiencing a challenging situation due to the coronavirus which is firstly arising in "Wuhan, china". According to the researcher in past there were two events occurred which leads to severe disease one was SARS-CoV (severe acute respiratory syndrome-coronavirus) and other was MARS-CoV (middle east respiratory syndrome-coronavirus) due to overlapping of animal corona viruses to the humans. Coronavirus(CoV) after entering into the body, it further enters into the other's body through sternutations (sneezing), Tussis(coughing) etc. Individual with co-morbidity disease conditions like diabetes, hypertension etc., are the higher risk of coronavirus due to low immunity. After knowing most of the opinion about covid19 it becomes compulsory to reduce person to person transmission to balance the current outbreak of covid-19. Periodically(recurrent) hand-washing by using the soap & water for minimum 20 seconds and in case of inaccessibility of soap & water , 70% alcohol based sanitizer should be used properly and use of mask.[8]

CONCLUSION

The virus SARS-CoV-2 (Severe acute respiratory syndrome- coronavirus-2) leads to coronavirus disease-19, the pandemic which has posed overwhelming effects on the worldwide health & is causing millions of death globally. The virus spreads easily, & the majority of the world's citizens is still at risk of this virus. Research is going on rapidly for vaccine development as it would provide some protection by besting our immune system to fight the virus. Sushmita Das studied the Biological sex could impact vaccine efficacy for covid-19. Worldwide, most countries have reported gender-disunited covid-19 data for cases and deaths. Particularly, the data from some covid-19 affected countries have pointed towards the male biaseness of the disease and severity being 2 times lower in female as compared to male. Notably, it was noted that male has more mortality rate than females. The influenza virus has also been termed as "the man flu", as males suffered more than females. Similarly in the severe acute respiratory syndrome-coronavirus(SARS-CoV) & middle east respiratory syndrome (MERS) male predominance was also observed. In process of covid-19 pathology immune system plays an important role , thus there is good opportunity for sex hormones to promote sex-biasness in the disease and also it is seen that covid-19 patient over 70 years of age show almost equal mortality among both genders.[9]

There are many antioxidants in interstitial fluids including albumin, which is known as one of the vigorous antioxidants. Serum albumin emerged to be one such prognostic indicator.Uzma khan etal. Studied the Serum albumin level as prognostic maker for covid-19 positive patients. In this study researcher included all the covid-19 positive patient and excluded individual who are having chronic liver disease, nephritic syndrome and patient who have not given written informed consent. In context of critically ill patients it is used as a prognostic indicator. Albumin being a negative acute phase reactant, its concentration decreases often enormously early in the course of illness & often does not increase till the recovery phase starts. Albumin oxidation activates the neutrophils extracellular traps through the reactive oxidant species collects within the neutrophils and in the end its accumulate within the lungs. Researcher claims that there is a growing body of evidence which suggest that reactive oxidant species are involve in platelet & the clotting activation, thus it is acceptable that in case of albumin depletion /oxidant and both compartments are hyperactivated. The impact of hypoalbuminemia [low albumin in serum] is oxidate stress/inflammation which is associated with the thrombosis tendency & poor survival. Rarely the effect of serum albumin on death rate in the covid-19 clients has observed so far. Hence this study was conducted to evaluate the role of serum albumin level as prognostic maker for covid-19 positive patients.[10]

REFERENCE

1. medicalsciencejournal.com/archives/2020/vol6/issue 3/6-3-29.
2. medicalsciencejournal.com/archives/2020/vol.6/6-5-28.
3. medicalsciencejournal.com/archives/2020/vol.6/issue4/6-4-40.
4. medicalsciencejournal.com/archives/2020/vol.6/issue4/6-4-22.
5. medicalsciencejournal.com/archives/2020/vol.6/issue4/6-4-51.
6. medicalsciencejournal.com/archives/2020/vol.6/issue6/6-6-11.
7. medicalsciencejournal.com/archives/2020/vol.6/issue7/6-6-60.

8. medicalsciencejournal.com/archives/2020/vol.6/issue9/6-9-11.
9. medicalsciencejournal.com/archives/2020/vol.6/issue11/6-10-18.
10. medicalsciencejournal.com/archives/2020/vol.6/issue12/6-12-15.