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REOCCURENCE OF CORONA VIRUS FROM DISCHARGED PATIENTS CAN BE A CHALLENGING TO ERADICATE THIS EPIDEMY

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ABSTRACT

Corona a dreadful virus has created disturbance all around the globe. The emergence of an unusual Corona virus (CoVID-19) flu pandemic starting in China in December 2019 has become major threat to public health. The investigations have shown this virus originated from a seafood market in Wuhan. Inspitevof its spread among humans the situation is getting more alarming on its reoccurrence. The present article foresights the various studies done on the reerruption of the virus, its antibody production and measures, preventions to be taken to avoid reoccurrence of the virus.

KEYWORDS: virus, reoccurrence, prevention, convalescing, antibody, mankind.

INTRODUCTION

A corona virus is a family of viruses which are surrounded by a fatty layer on the surface of which is a spike protein that gives the appearance of crown or corona. This virus has never been detected in humans earlier and therefore it is considered as one of the most dangerous viruses transmitted from the animals to humans spreading all over the world in a drastic manner. The disease started in 1965 reported by Tyrell and bynoe[1] when they isolated from the nasal washing of a male child who had symptoms of common cold. The strain B814 was one of the corona virus OC43. In 1968[2] the term coronavirus was accepted.

With the outbreak of unknown pneumonia in Wuhan (China) in December 2019, a new corona virus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) aroused the

attention of the entire world. The current outbreak of infections with SARS-CoV-2 is termed Coronavirus Disease 2019 (CoVID-19). The World Health Organization has declared CoVID-19 in China as a public health emergency of international concern. In the past also, two other coronavirus infections SARS in 2002-2003 and Middle East Respiratory Syndrome (MERS) in 2012—both have caused severe respiratory syndrome in humans.[3] All the three of these emerging infectious diseases leading to a global spread are caused by β-coronaviruses family The recent CoVID-19 pandemic is a major source of disaster in the 21th century as there is no vaccine or medicine available till date to prevent and cure it and more over it can reoccur again. Many newspaper world wide are now reporting that there is a growing number of positive cases of corona pateints after getting discharged from the hospital. Many experts are saying that convalescing pateints might not have build enough antibodies to covid 19 and are being infected again. Virus should be biphasic means it lies dormant in the body. Reports from world wide are showing that on Feb. 21, 2020 a discharged patient in south western Chinese city of Chengdu was readmitted 10 days after being discharged when follow up test came back positive.[4] A journal of American medical association study of 4 infected medical personal treated in Wuhan said that some recovered pateints would remain carriers even after meeting discharge criteria. Song tie, Vice director of local disease control centre in southern china Guangdong province told media that 14% of discharged pateints in the province have tested positive again and returned to the hospital. A statement given by Adam Kamradt Scott a specialist in infectious disease at university of Sydney says that convalescing pateints will develop specific antibodies that render them immune to the virus infected them. some experts have raised the possibility of antibody dependent enhancement. studies has also shown that exposure to virus make patients more at risk of further infection and worse symptoms. David Stanway in Shingai, kate kelland in London reported in Thomas reuter trust principle that one of the riskiest elements of corona virus is that people have no immunity to it because it is completely new. David Heuway[5] working for London school of hygiene and tropical medicine also reported in a news that people have very less and short term immunity towards virus because it is entirely new in nature. Even Dr Zhan Qingyuan,[6] a member of China's health commission said at a press conference, on Feb 6, 2020, Chinese media CGTN reported. 'For those patients who have been cured, there is a likelihood of a relapse. He suggested the cured patients to harness their own health safeguard. The way people develop immunity to a virus is by creating substances called antibodies – highly specific parts of the immune system which seek out and attack the viruses they are produced to fight. Dr Zhan also added: 'The antibody will be generated. However, in

certain individuals, the antibody cannot last that long. This is very important to note down at this moment. Scientists in china have recorded the genetic sequence of around 19 strains of the virus. The Director- General's of China Centre for disease control and prevention, Gao Fu said that the virus is mutating (mutation means changing) as it spreads from people to people. we can even say that when virus has multiple strains so when the body has antibodies for one strain, they may still be vulnerable to another which causes the same illness. Elane K. Howley on 8th April, 2020 said that humans have no innate immunity. This is also really very unclear that covid 19 generates enough antibodies to impart a durable immune response. Sumit chandra director and professor, associated with Immunity pathogenesis programme at Sanford Bumhams Prebys medical discovery institute in LaJolla california says that there are many questions to be answered. How long the antibodies provide protection. Does the virus mutate to avoid the defense of antibodies.

A preliminary study from shanghai indicated that recovered pateints have no evidence of antibodies. Florian krammer, Ph.D, virologist and vaccinologist in department of microbiology at Icahn school of medicine at Mount Sinai in new york city said on twitter that RNA of many viruses can be detected months after viral shedding has ended. Follow up tests can turn positive after a few negative tests. Even research news from the New England Journal of medicine shows that some pateints do not have fever or radiographic abnormalities initially which really complicates the diagnosis. These all above quoted examples should be taken into account for mankind concern. Respiratory infections, diarrohoea illness, urinary tract infection, conjuctivitis are also symptoms of corona virus. Even I would like toshare one more thing which I studied in one article by Dr. Hielena Mair from Pirbright Institute says that corona virus are family of viruses which may also infect cattle, pigs, chicken, dogs, cats, wild animals including humans. In 2017[8] a case report was published by Hannah chesser of a 8 month female child with purpura and extreme swelling with rashes, mild cough, bilateral conjunctivitis. these symptoms indicated with corona virus NL63. Early recognition was with AHEI (Acute haemmoraghic edema of infancy) was observed. A recent case study is published in a journal[9] of a 46 years old woman which showed an abnormal behavior. The oropharyngeal swab test for SARS-CoV-2 RNA was positive again after two consecutively negative results within a span of 7 days, inspite of her improvement in her respiratory with no fever. In other words, she was still capable of transmitting the virus to other people even if she had been discharged right after the second negative test. This is really alarming to be taken into account seriously.

CONCLUSIONS

The speculations for COVID -19 are fluctuant as we see. No clinical research has yet been accurately established indicating the actual nature of virus and its contagious nature. It means that there should be regular testing for infectivity assessment and all discharged patients should be home quarantined for at least 14days. The only aim of quoting so many examples is to make everyone aware of the pros and cons of this epidemy. I think the above article will also help and guide our perfect medical units to be very much alarmed taking into consideration preferably the recovered patients of covid 19 and even those people who are in quarantine phase for thorough examination timely. All should very cautiously move to a step out of the lockdown and policies should be developed for each and every sector of the society keeping in view to minimize the risk of spread of the virus infection. Only and only social physical distancing with mask, sanitization is one of the most safe and easy way to get rid of this disastrous virus. Save yourself and save others. This is the best way to potentially control to slow down the spread of virus.

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