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NeoCov Variant History, Symptoms, Cause, &Treatment

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ABSTRACT

Scientists in Wuhan, China, the site of the first COVID-19 case, have issued a warning about a new kind of Coronavirus known as NeoCov. It was originally detected in Saudi Arabia in 2012 and is linked to the MERS-Coronavirus, a virus that is related to SARS-CoV-2. According to the findings, NeoCov may have a significant risk of infection. According to Russian news outlet Sputnik, the NeoCov Variant has a high infection and mortality rate (one out of every three fatalities), posing a large risk of fatality when combined with SAS-high CoV-2's transmission rate, making it a potentially lethal epidemic. MERS-Cov, according to the World Health Organization (WHO), is part of a wide family of coronaviruses that may cause a variety of illnesses, including the common cold and SARS (Severe Acute Respiratory Syndrome). Neo-Cov is not a new variety of Covid-19. It's a coronavirus strain or another kind that was initially detected in 2012 and then again during the MERS-Cov epidemic in 2015. NeoCov is not a variation of SARS-CoV-2, the virus that causes Covid-19 symptoms in people, like Delta or Omicron. It's a different kind of new coronavirus.

Keywords: NeoCov, MERS-Cov, SARS-CoV-2, WHO, COVID-19

INTRODUCTION

This isn't a new or unknown virus, despite the "neo" moniker. It was initially discovered in 2011 in a bat species named Neoromicia capensis in South Africa, which gave the virus its name. Bat faecal pellets, a typical source for scientists studying viruses housed by bats, were used to identify the virus. NeoCoV is genetically 85% identical to the MERS-CoV virus, making it the latter's closest relative, according to research published in 2014. MERS-CoV created an outbreak in 2012, with a 35 percent death rate. Coronaviruses are divided into four types: alpha, beta, gamma, and delta (different from the delta variant of SARS-CoV-2). (1) Alphacoronaviruses and

betacoronaviruses may infect humans and other animals, but the other two species have affected birds. There are seven human coronaviruses in total, including SARS-CoV-2, SARS-CoV, and MERS-CoV, all of which are alpha or betacoronaviruses. NeoCoV is a betacoronavirus as well. The biggest reservoir of mammalian coronaviruses is bats, who have immune response modifications that allow them to sustain hundreds of viruses in their bodies. The origins of human-infecting coronaviruses may be traced back to their closest cousins in bats. (2)

NeoCov, a close cousin of the Middle East Respiratory Syndrome (MERS-CoV), was detected in a bat population in South Africa and is now only spreading among animals, according to the Chinese experts. The virus in issue, on the other hand, has the ability to evolve and infect humans. "According to experts, the virus can infect human cells with just one mutation." Infection with NeoCov could not be eliminated by antibodies targeting SARS-CoV-2 or MERS-CoV, according to scientists. (1)

NeoCov is a Coronavirus strain similar to SARS-Cov-2 that can kill one out of every three people infected, according to experts from Wuhan University and the Chinese Academy of Sciences' Institute of Biophysics. Even as the world grapples with SARS-CoV-2 and its variations, scientists in Wuhan, where the virus is thought to have originated, have issued a warning about a new coronavirus strain that may be even deadlier than Covid-19. The 'NeoCov' strain is linked to MERS-coronavirus, which causes Middle Eastern respiratory disease. NeoCov, when combined with the high fatality rate of MERS-coronavirus, is expected to kill one out of every three patients. (3)

Neocov Variant WHO

Although research reveals it has a latent proclivity for mutation, the World Health Organization (WHO) has said that further research is needed to fully comprehend its potential. The World Health Organization says further study is needed to see if the NeoCov coronavirus, which was recently discovered in South African bats, poses a risk to humans. "More study is needed to see if the virus discovered in the research poses a threat to individuals." According to a press release from the World Health Organization. It also stated it "works closely" with the World Organisation for Animal Health (OIE), the Food and Agriculture Organization (FAO), and the United Nations Environment Program (UNEP) to "monitor and respond to the threat of novel zoonotic viruses." The WHO has acknowledged the study and thanked the researchers for sharing their findings, according to the media. "Animals, particularly wild animals, are to blame for more than 75% of all new infectious diseases in humans." Novel viruses are responsible for the spread of many of these illnesses. Coronaviruses may infect a broad range of animals, including bats, which have become a natural reservoir for some of these viruses, according to the International Organization for the Scientific Research on Coronaviruses. (1) and (2)

The risk to humans

NeoCoV has not been found in humans, and it has not spread into the human population. Its close relative, MERS, has a fatality rate of one in every three people, according to reports. When a coronavirus — or any virus — crosses species boundaries, it experiences genetic alterations that allow it to evolve into a new strain capable of infecting the new species. After then, it's given a new name. Every day, hundreds of viruses and a large number of coronaviruses are just a few mutations away from infecting people. Typically, such spillover occurrences have place in intermediate host species like pigs or camels, where viruses gain more favourable modifications that make it simpler for them to leap into humans. Since before the current epidemic, bats have been actively monitored and their genomes sequenced for possible viruses. To comprehend danger, it is necessary to identify a possible mutation that may allow a virus to infect people. More research is needed to determine how easy such a mutation may arise. To do so, scientists will investigate the potential for mutation in human cells in the lab, as well as how rapidly other, comparable changes occur in nature. The risk to people will not be completely realised until that is done. Every day, hundreds of viruses pose a threat to people, yet spillover occurrences, or the transfer of a virus from one species to another, are uncommon. (3)

How does Neo-Cov impact humans

Only bats have been confirmed to be infected with the virus thus far. However, according to a

research published on the bioRxiv website and cited by Russian news outlet Sputnik, NeoCov and its near sibling PDF-2180-CoV might infect people. According to the report, it is only one mutation away from being able to penetrate the human immune system. "Given the significant changes in the RBD areas of SARS-CoV-2 variations, particularly the severely mutated omicron variant," the research concluded, "these viruses may harbour a latent potential to infect people through further adaptation via antigenic drift." However, further study is needed to determine if 'NeoCov' will have an effect on humans. (1)

NeoCov Variant Symptoms

The novel strain is presently being investigated by experts. Despite the fact that NeoCov is known to spread among animals, doctors believe it has symptoms that are similar to SARS-CoV-2 and might infect humans. A high temperature, loss of taste and smell, diarrhoea, runny nose, congestion, chest discomfort, persistent cough, headache, body aches, muscular pain, and other COVID symptoms are all possible. As a result, no fresh symptoms have been discovered. (1)

NeoCov Variant Causes

So far, only bats have been found to be infected with the virus. NeoCov and its brother PDF-2180-CoV may infect individuals, according to research published on the bioRxiv website and reported by Sputnik. It is only one mutation away from breaching the human immune system, according to the paper. "These viruses may retain a latent capacity to infect individuals by additional adaptation through antigenic drift," the study found, "given the considerable alterations in the RBD regions of SARS-CoV-2 variants, notably the extensively altered omicron variant." To assess how NeoCov will effect humans, more study is needed. (1,4-7)

Neocov Variant Treatment

According to this research, immunity or antibodies derived from past Covid-19 infections may not be helpful in preventing NeoCov. Because NeoCov interacts with ACE2 differently than SARS-CoV-2, this is the case. The results were quoted by the Russian State Virology and Biotechnology Research Center, despite the fact that the work is still under evaluation. Which is why, according to a statement released last week, more study is underway. (7-10)

CONCLUSION

According to Chinese researchers, NeoCov, a modern version of the Middle East Respiratory Syndrome (MERS-CoV), was discovered in a bat population in South Africa and is now only spreading among animals. On the other hand, the virus in question has the power to develop and infect people. "Experts say that with just one mutation, the virus may infect human cells." According to research, antibodies targeting SARS-CoV-2 or MERS-CoV could not remove NeoCov infection. Further research is needed for the clear illustrations of the effects of NeoCov in humans.

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