

Omicron: The Next Fatal Being

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Abstract

Viruses innately have the ability to mutate constantly and lead to variants. Some variants emerge and disappear while some persist. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a beta coronavirus that belongs to the Coronaviridae family. The family is composed of single-stranded positive ribonucleic acid (RNA) viruses. A change in the genetic sequence is called a mutation ^[6]. Genomes that differ from each other in genetic sequence are called variants. Variants can differ from each other by one or more mutations. The Omicron variant is a variant of SARS-CoV-2, the virus that causes COVID-19. As of December 2021, it is the newest variant. It was first

reported to the World Health Organization (WHO) from South Africa on 24 November 2021. As of 28 November 2021, the World Health Organization's update states, “There is currently no information to suggest that symptoms associated with Omicron are different from other variants”.

Introduction

Viruses innately have the ability to mutate constantly and lead to variants. Some variants emerge and disappear while some persist. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a beta coronavirus that belongs to the Coronaviridae family. The family is composed of single-stranded positive

ribonucleic acid (RNA) viruses ^[1]. Coronaviruses (CoV) are a family of single-stranded RNA viruses that can transmit infections human to humans (HCoV) documented over 50 years. Coronavirus infectious disease 2019 (COVID-19), was initially reported as the Wuhan Coronavirus or 2019 novel coronavirus, bleeding humanity since December 2019 ^[2, 3]. At the end of 2019, hospitals in Wuhan, China, reported 4 cases of respiratory illness “pneumonia of an unknown aetiology” by surveillance which later emerged as a COVID-19 outbreak. Mutations in the viral genome sequence give birth to different variants. Environmental mutagens include UV radiation, metal ions, and endogenous components of organisms that changed the genetic structure of the SARS CoV-2 from time to time ^[4]. Coronavirus is an RNA virus that evolves and changes gradually ^[5].

A change in the genetic sequence is called a mutation ^[6]. Genomes that differ from each other in genetic sequence are called variants. Variants can differ from each other by one or more mutations. When a phenotypic difference is demonstrated among the variants, they are called strains ^[7]. The Gamma strain (P.1) surfaced in Manaus, Brazil, in November 2020, responsible for two waves of Coronavirus. Delta variant, which was first identified in India, can be more lethal because it is 60% more transmissible ^[8].

The Omicron variant has now been detected in many countries around the world. WHO reports that Omicron is probably in most countries, even if it hasn't been detected yet? Omicron is spreading more quickly than other variants. Based on the information available, WHO believes it is likely that Omicron will outpace the Delta variant where there is COVID-19 transmission in the community. The Omicron variant is a variant of SARS-CoV-2, the virus that causes COVID-19. As of

December 2021, it is the newest variant. It was first reported to the World Health Organization (WHO) from South Africa on 24 November 2021. As of 28 November 2021, the World Health Organization's update states, "There is currently no information to suggest that symptoms associated with Omicron are different from other variants".

A study performed between the first of December to the 7th of December by the Center for Disease Control found that "The most commonly reported symptoms [were] cough, fatigue, and congestion or runny nose".

Research published in London on 25 December 2021 suggested the most frequent symptoms stated by users of the Zoe Covid app were "a running nose, headaches, fatigue, sneezing and sore throats".

A unique reported symptom of the omicron variant is night sweats.

The aim of our study was to assess about the awareness among people regarding the differences in the symptoms due to mutation in covid 19 virus.

Method

This study was conducted by creating an online google form and it was circulated among people of different age groups and professions. The conclusion of the study was based on the options selected by the people.

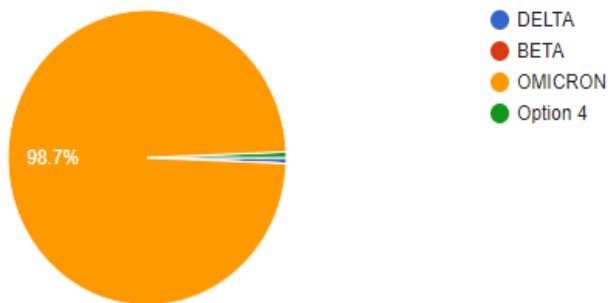
The questionnaire started from asking the name of the variant and then the questions were one by one to check the knowledge of the people about the new strain. The results were then segregated and then conclusion was based on the various choice selected by the participants

The objective of this entire study was to assess the awareness of people about the symptoms of new covid strain and to spread awareness among them regarding the same.

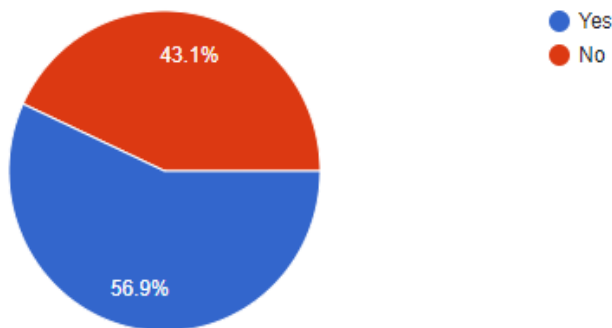
Result

The study was conducted on 163 people and the questionnaire started with the first question being about the name of the new variant, about which most of the participants were aware about.

98.7% people were aware about the name of the virus beingOMICRON.



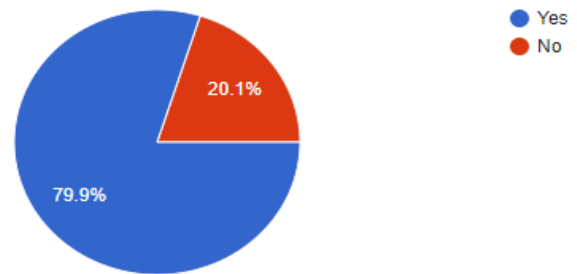
Since Genome typing is used to identify the type of variant present and hence this question was also made a part of our study to evaluate whether people are aware of it or not. This question somehow showed mixed response and there was only slight difference of percentage in yes or no.



Awareness about gene typing

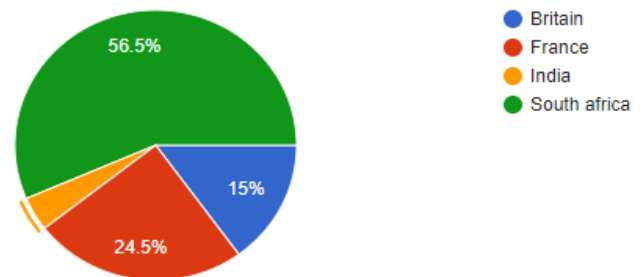
The next question was that whether the people are aware of the fact that omicron is producing less severe symptoms than all the other strains to which 79.9%

people responded that they feel that the symptoms of omicron are less fatal.



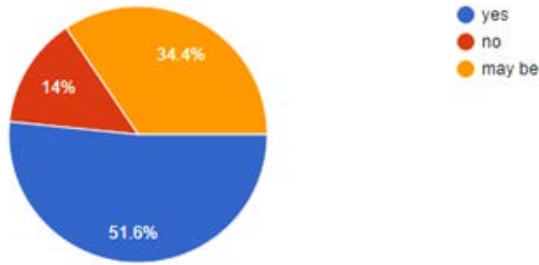
Awareness about symptoms being milder

The next question aimed to see that whether the people are aware of the fact that where the first case of omicron was found globally as well as in India. Although more than half of people were aware about where the first case of Omicron was found in globally but when it came to information about case zero in India, all the participants gave varied responses.

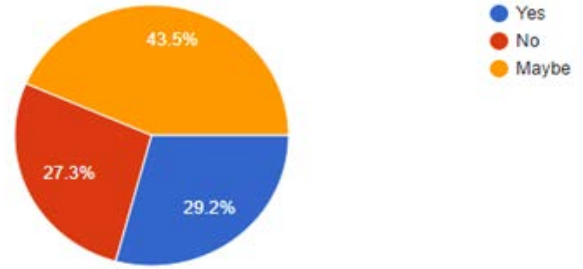


Case Zero of Omicron in India.

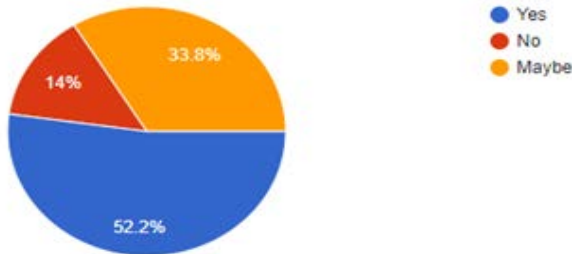
The next few questions were based on the symptoms of this variant. The participants were asked about the various symptoms that included body ache, tiredness, drop in oxygen saturation levels, scratchy throat and loss of sensation of smell and taste. The participants were asked that whether they feel that the new variant is producing any of the mentioned symptoms and then the results were represented in form of pie chart.



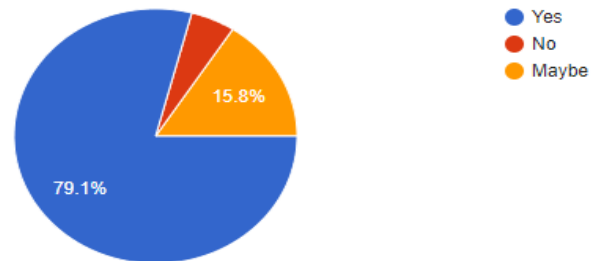
Body ache- A symptom



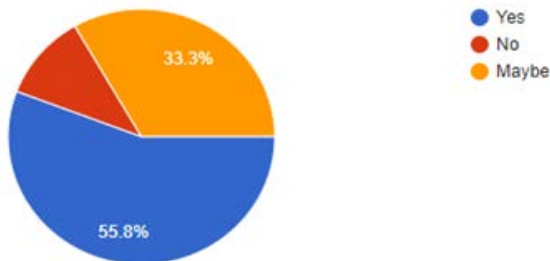
Drop in oxygen-saturation



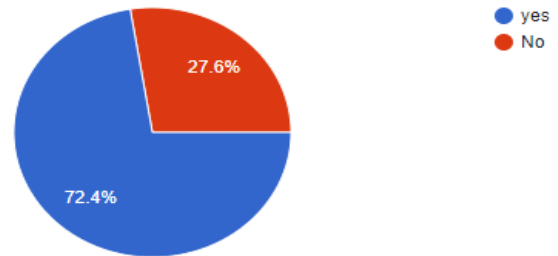
Scratchy throat



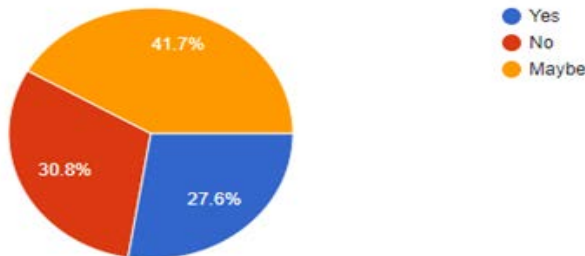
Behaviour of people towards covid safety protocol



Extreme Tiredness



Covid-the next fatal thing



Loss of taste and smell

Discussion

This study was done to assess the awareness of people towards the new variant. The questionnaire consisting of various questions related to signs and symptoms of Omicron was circulated among 163 participants of all age, gender and professions. Although new covid strain

proved to be less fatal than the first strain with degree of symptoms but the degree of transmissibility is more severe. The awareness seen among people regarding the new strain was quite mixed, with participants either being quite responsive towards some questions while being completely unaware towards other questions

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