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Commentary

Omicron - Facts and Myths

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COVID-19 is a profound threat to humanity if we consider the current circumstances. Since the first hit in Wuhan (2019), a slew of variations have arisen. In the late 2020s, the rise of diverse COVID Variants posed an indomitable threat to the well-being of people around the globe, which in turn led to the classification of specific Variants of Interest (VOIs) and Variants of Concern (VOCs) that was crucial to signify the importance of global monitoring and research and taking steps to combat the ongoing COVID 19 pandemic response mechanism [1].

Following are the variants of concerns prevalent around the world

WHO label	Pango Lineage	GISAID clade	Nextstrain Clade	Additional amino acid changes monitored[o]	Earliest documented samples	Date of designation
Alpha	B.1.1.7	GRY	20I (V1)	+S:484K +S:452R	United Kingdom, Sep-2020	18-Dec-2020
Beta	B.1.351	GH/501Y.V2	20H(V2)	+S:L18F	South Africa, May-2020	18-Dec-2020
Gamma	P.1	GR/501Y.V3	20J (V3)	+S:681H	Brazil, Nov-2020	11-Jan-2021
Delta	B.1.617.2	G/478K.V1	21A, 21I, 21J	+S:417N +S:484K	India, Oct - 2020	VOI: 4-Apr-2021 VOC: 11-May-2021
Omicron*	B.1.1.529	GRA	21K, 21L, 21M	+R346K	Multiple countries, Nov-2021	VUM: 24-Nov-2021 VOC: 26-Nov-2021

[o] Only found in a subset of sequences.

Detection

The six WHO Regions have reported the existence of the Omicron variant across its 110 countries as of December 22nd, 2021. Individuals who tested positive with Omicron can be justified through routinely used PCR and antigen-based rapid diagnostic test (Ag-RDT) assays; however, its accuracy does not amplify the significance in any cases.

Severity

Omicron can grow significantly when compared with Delta, according to the evidence. The Omicron Variant has a transmission period that is twice faster than the Delta Variant. Research evidence from the United Kingdom (UK), South Africa, and Denmark indicate that the hospitalization rate for Omicron Variant is considerably lower than the Delta Variant [2].

Reinfection

Research conducted in the early phases suggests that the relapse rate for the Omicron Variant is higher than other Variants of COVID 19 existing at present.

Vaccines

The existing vaccines exhibit the same efficiency for Omicron Variant concerning severity in co-morbidity and mortality. The United Kingdom reports that after the two vaccine doses of either AstraZeneca-Vaxzevria or Pfizer BioNTech-Comirnaty vaccines, there is decreased effectiveness while combating the Omicron Variant compared to Delta. However, the efficiency rate in dealing with Omicron Variant increases slightly after an individual is exposed to the booster dose of Pfizer BioNTech-Comirnaty, after two weeks. A non-peer-reviewed study conducted by South African researchers utilizing private health insurance data found that the Pfizer BioNTech-Comirnaty vaccine was less effective against infection and, to a lesser extent, hospitalization.

Treatments

IL6 receptor blockers and corticosteroids are reported to have the same effect on the recovery of individuals affected with Omicron Variant as applicable to SARS-CoV 19. However, the efficiency of other therapeutic measures for other variants is still to be evaluated and justified for Omicron Variant [3]. Some monoclonal antibodies created against SARS-CoV-2 may have lower neutralization against Omicron, according to preliminary findings from non-peer-reviewed publications. Antigen binding and viral neutralization of monoclonal antibodies will need to be studied independently, and these studies should be prioritized.

Anecdotal Case reports, especially from India, have revealed lung involvement on CT scans as bad as 60 - 70% in the last two weeks. However, in response to regular treatment, the overall outcomes of these patients have to be followed. The currently available evidence suggests following all possible precautions to the current strain like that of the older ones.

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