## 'Deadly 2nd wave variant first seen in Dec'

Malathy Iyer | TNN | Jun 5, 2021



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Mumbai: B.1.617, the most infectious SARS-CoV-2 variant at the moment, was first noticed in India in December 2020—at least three-four months before it led to the worst Covid-19 outbreak in the world so far, reports Malathy Iyer.

This was revealed by one of India's leading scientists, Dr Anurag Agrawal, director of IGIB, in two research papers over the last two days. B.1.617 was initially called the Indian variant until the World Health Organisation promoted an unbiased nomenclature, naming its sub-lineages 1 and 2 are named as Kappa and Delta, respectively.

Despite 18 months into the pandemic, little is still known about the SARS-CoV-2 virus to be able to make forecasts about emerging mutations and their ability to wreak havoc.

From February onwards, B.1.617 spread rapidly, with five-digit cases reported from Mumbai and Delhi every day. "Looking back, the first sequences of what turned out to be B.1.617 were available in December 2020, when cases were declining. It was identified as a cause for concern in March (from samples sequenced in February after a January outbreak), on the basis of spiking cases and the presence of mutations seen in other troubling variants," wrote Dr Agrawal in leading science journal, Nature.

In December, no scientist in the country or the world (as genetic sequences are shared by most scientists in open source format in real time) could predict that Delta would emerge as the variant of concern that managed to infect vaccinated people.

"The emergence of Delta only proves that we need to study the virus closely. The biology needs to be studied. Before planning for the third wave or looking for other variants, we need to understand what made Delta more transmissible," he told TOI.

On Friday, a pre-print study by scientists of India's INSACOG consortium of laboratories said that "surge of SARS-CoV2 infections in Delhi is best explained by the introduction of a new highly transmissible VOC, B.1.617.2, with likely immune-evasion properties; insufficient neutralizing immunity, despite high seropositivity; and social behavior that promoted transmission".

In January, it was believed that the 'UK variant' B.1.1.7 was the most common variant in circulation in Delhi. "This was followed by seeding of the B.1.617 VOC, which too is highly transmissible, with rapid expansion of B.1.617.2 sublineage outpacing all other lineages. This unprecedented growth of cases occurred in the background of high seropositivity," said the study. Dr Agrawal said that at present there is no technology to ascertain which mutation or variant would trigger a new wave. "Analytics and genome sequencing will only take you so far. Sequencing cannot figure out what the emergence of a new variant means. We can only tie it to an outbreak later. We are in that sense always behind the curve. Hence, we need to learn more about the virus so that we can sequence better and forecast better," he added.

There is a need to develop more tests, plan more sequencing and adopt promising new technologies, including lowcost CRISPR diagnostics for places with limited resources, should be prioritized, said the scientist.

Dr Nerges Mistry of the Mumbai-based Foundation for Medical Research, which has sequenced B.1.617 variants, said that there is an urgent need to scale up genomic sequencing. "We need to identify clusters and keep a watch on vulnerable patients (in whom Covid stays for longer and could engineer a mutation) in order to stay ahead," she said.

Dr Kayzad Nilgiriwala said that sequencing is low in India as compared to European nations such as the UK and Denmark which sequence about 5% of the positive samples.