Changes in SARS-CoV-2 Sequence Linked With Antiviral Use

The antiviral drug molnupiravir was linked with a pattern of genomic changes in SARS-CoV-2, based on an analysis in Nature of more than 15 million global sequences.

Molnupiravir is converted in the body to a nucleotide that is incorporated into the virus' genome, introducing errors into the sequence. These errors tend to reduce the number of surviving viral progeny, giving the immune system a better chance of clearing the virus. However, if a person is unable to fully clear the virus, some of the viral progeny with genomic changes can be passed along to other hosts.

The researchers, who evaluated changes in the SARS-CoV-2 genome over time, found that certain genomic modifications were more common after the introduction of molnupiravir in 2022, particularly in countries and groups of people who used the drug more often. These patterns were also present in individual patients who had been treated with molnupiravir.

"We recommend that public health authorities perform continued investigations into the effects of molnupiravir in viral sequences, and the transmissibility of molnupiravir-derived lineages," the researchers wrote. – Emily Harris

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Note: Source references are available through embedded hyperlinks in the article text online.