

U.K. VARIANT NOT MORE CONTAGIOUS: STUDY

Relevant for: Science & Technology | Topic: Biotechnology, Genetics & Health related developments

The UK variant (B.1.1.7) of the coronavirus did not appear to be more transmissible than the variant of the virus most common in India, according to a study by scientists at the National Institute of Virology, Pune.

The study was based on tests on Syrian hamsters, a commonly employed laboratory animal, and is yet to be formally peer-reviewed.

B.1.1.7, the variant of the coronavirus has mutations that enable it to spread more readily among people and was linked to a sharp spike in cases in the United Kingdom last December. Some vaccine trials have also shown reduced efficacy in those affected with the variant.

India has registered 771 cases of the three 'variants of concern' reported internationally. Of these 736 have been from B.1.1.7.

Health authorities in Punjab said about 80% of the cases of recent tranche of coronavirus positive samples were of the B.1.1.7 variety and, therefore, were likely linked to the spurt in the State.

To establish how quickly the strain spread, NIV scientists infected two groups of nine hamsters, with one group given the B.1.1.7 and the other the dominant SARS-CoV-2 strain in India. The latter is characterised by a mutation called D614G.

Small groups

The hamsters were further broken into smaller groups and compared with other sets of hamsters to see if those inoculated with the variants spread their germs. This was done by housing the hamsters in close proximity in cages and analysing virus levels in the faeces.

To study the spread of virus via 'fomites' (surfaces), viral particles on the surfaces that the hamsters had been in contact with such as beddings, water nozzle, cage surfaces, were also evaluated.

"The day-wise comparison of the body weight loss and the viral shedding pattern in contact hamsters by both variants... did not show any statistical significance. Also the comparison of different routes of transmission by each variant... also did not show any statistical significance," the authors reported.

In an earlier study, the NIV scientists had reported that hamsters with the B.1.1.7 shed more virus particles as determined from measuring virus samples in their nasal fluids.

"The study demonstrated comparable transmission efficiency of both UK and D614G variants of SARS-CoV-2 in Syrian hamsters," the more recent study said.

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