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DCGI gives nod to anti-COVID-19 drug made by INMAS, Dr Reddy's Labs

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Clinical trial results have shown that this molecule helps in faster recovery of hospitalised patients



An anti-COVID-19 therapeutic application of the drug 2-deoxy-D-glucose (2-DG) has been developed by Institute of Nuclear Medicine and Allied Sciences (INMAS), a lab of Defence Research and Development Organisation (DRDO), in collaboration with Dr Reddy's Laboratories (DRL), Hyderabad.

Clinical trial results have shown that this molecule helps in faster recovery of hospitalised patients and reduces supplemental oxygen dependence. Higher proportion of patients treated with 2-DG showed RT-PCR negative conversion in COVID patients. The drug will be of immense benefit to the people suffering from COVID-19.

In April 2020, during the first wave of the pandemic, INMAS-DRDO scientists conducted laboratory experiments with the help of Centre for Cellular and Molecular Biology (CCMB), Hyderabad and found that this molecule works effectively against SARS-CoV-2 virus and inhibits the viral growth.

Based on these results, Drugs Controller General of India's (DCGI) Central Drugs Standard Control Organization (CDSCO) permitted Phase-II clinical trial of 2-DG in COVID-19 patients in May 2020.

The DRDO, along with its industry partner DRL, started the clinical trials to test the safety and efficacy of the drug in COVID-19 patients.

In Phase-II trials (including dose ranging) conducted during May to October 2020, the drug was found to be safe in COVID-19 patients and showed significant improvement in their recovery. Phase IIa was conducted in six hospitals and Phase IIb (dose ranging) clinical trial was conducted at 11 hospitals all over the country. Phase-II trial was conducted on 110 patients.

The drug comes in powder form in sachet, which is taken orally by dissolving it in water. It accumulates in the virus infected cells and prevents virus growth by stopping viral synthesis and energy production. Its selective accumulation in virally infected cells makes this drug unique.