High efficacy reported for Sputnik V COVID-19 vaccine

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(HealthDay)—A heterologous recombinant adenovirus (rAd)-based

vaccine, Gam-COVID-Vac (Sputnik V), has 91.6 percent efficacy against COVID-19, according to a study published online Feb. 2 in *The Lancet*.

Denis Y. Logunov, D.Sc., from the Federal State Budget Institution "National Research Centre for Epidemiology and Microbiology named after Honorary Academician N.F. Gamaleya" of the Ministry of Health of the Russian Federation in Moscow, and colleagues conducted a randomized, double-blind, phase 3 trial at 25 hospitals and polyclinics to examine the efficacy and safety of Gam-COVID-Vac. The vaccine was administered intramuscularly, with a 21-day interval between the first and second doses (rAd26 and rAd5, respectively), with both vectors carrying the gene for full-length severe acute respiratory syndrome coronavirus 2 glycoprotein S.

A total of 21,977 adults were randomly assigned to either vaccine (16,501 participants) or placebo (5,476 participants) between Sept. 7 and Nov. 24, 2020; 19,866 received two doses. The researchers found that from 21 days after the first dose, 0.1 and 1.3 percent of those receiving the vaccine and placebo, respectively, were confirmed to have COVID-19; vaccine efficacy was 91.6 percent. Most reported adverse events were grade 1, with 0.3 and 0.4 percent of participants in the vaccine and placebo groups, respectively, having serious adverse events, none of which were considered associated with vaccination.

"Our interim analysis of the randomized, controlled, phase 3 trial of Gam-COVID-Vac in Russia has shown high efficacy, immunogenicity, and a good tolerability profile in participants aged 18 years or older," the authors write.

Several authors reported patents for an immunobiological expression vector, pharmaceutical agent, and its method of use to prevent COVID-19.

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