Anakinra does not prevent mechanical ventilation in severe COVID-19 pneumonia, finds study

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Anakinra is not effective in reducing the need for mechanical ventilation among patients with severe COVID-19 pneumonia, according to a study published online April 7 in *JAMA Network Open*.

Patricia Fanlo, M.D., Ph.D., from the Hospital Universitario de Navarra in Pamplona, Spain, and colleagues assessed the efficacy and safety of anakinra (100 mg four times a day intravenously) versus standard of care alone for patients with severe COVID-19 pneumonia and hyperinflammation. The analysis included 179 patients treated at one of 12 Spanish hospitals (May 8, 2020, to March 1, 2021), with a follow-up period of one month.

The researchers found that the proportion of patients not requiring mechanical ventilation up to day 15 was not significantly different between groups (77.1 percent in the anakinra group versus 85.9 percent in the standard-of-care group; risk ratio, 0.90; 95 percent confidence interval, 0.77 to 1.04; P = 0.16). Furthermore, anakinra did not result in any difference in time to mechanical ventilation (hazard ratio, 1.72; 95 percent confidence interval, 0.82 to 3.62; P = 0.14). Lastly, there was no significant difference observed between groups in the proportion of patients not requiring invasive mechanical ventilation up to day 15 (risk ratio, 0.99; 95 percent confidence interval, 0.88 to 1.11; P > 0.99).

"Although the primary and key secondary outcomes were not met, anakinra may have a role as an early treatment for patients with less-severe disease and inflammation," the authors write.

The drugs for the study were provided by the company Swedish Orphan Biovitrum (Sobi), which manufactures anakinra.

More information: Patricia Fanlo et al, Efficacy and Safety of Anakinra Plus Standard of Care for Patients With Severe COVID-19, *JAMA Network Open* (2023). DOI:

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