Study shows landiolol does not reduce organ failure in septic shock patients with tachycardia

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An infusion of landiolol does not reduce organ failure among patients with septic shock with tachycardia, according to a study published online Oct. 25 in the *Journal of the American Medical Association* to coincide with the annual congress of the European Society of Intensive Care Medicine, held from Oct. 21 to 25 in Milan.

Tony Whitehouse, M.D., from the Queen Elizabeth Hospital in Birmingham, England, and colleagues examined the efficacy and safety of landiolol in a randomized trial involving 126 adults with tachycardia and established septic shock treated for at least 24 hours with continuous norepinephrine in 40 U.K. intensive care units. The patients were randomly assigned to usual care (63 patients) or landiolol infusion (63 patients).

On the advice of the independent data monitoring committee, the trial was stopped prematurely as it was considered unlikely to demonstrate benefit and because of potential harm.

The researchers found that the mean Sequential Organ Failure Assessment score was 8.8 and 8.1 in the landiolol and standard care groups, respectively (mean difference, 0.75). At day 28 after randomization, mortality was 37.1 and 25.4% in the landiolol and standard care groups, respectively (absolute difference, 11.7%). At 90 days after randomization, mortality was 43.5 and 28.6% in the landiolol and standard care groups, respectively (absolute difference, 15%).

"These results do not support the use of landiolol in the management of patients with tachycardia while receiving norepinephrine undergoing treatment for established septic shock," the authors write.

More information: Tony Whitehouse et al, Landiolol and Organ Failure in Patients With Septic Shock, *JAMA* (2023). DOI: 10.1001/jama.2023.20134