Medication shows mixed results in reducing complications from cardiac surgery

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Administration of colchicine, a plant-based medication commonly used to treat gout, before and after cardiac surgery showed mixed results in reducing potential complications from this type of surgery, but it did increase the risk of gastrointestinal adverse effects, according to a study published by *JAMA*. The study is being released early online to coincide with its presentation at the European Society of Cardiology Congress.

Common complications after cardiac surgery include postpericardiotomy syndrome (the occurrence of the symptoms of pericarditis, including chest pain), postoperative atrial fibrillation (AF), and postoperative pericardial/pleural effusions (excess fluid around the heart and lungs), affecting more than one-third of patients. These complications may lead to prolonged hospital stay, readmissions, and need for invasive interventions. Postoperative use of colchicine helped prevent these complications in a single trial, according to background information in the article.

Massimo Imazio, M.D., of Maria Vittoria Hospital, Torino, Italy, and colleagues randomly assigned 360 cardiac surgery patients from 11 centers in Italy to receive placebo (n=180) or colchicine (n=l80) starting between 48 and 72 hours before surgery and continued for 1 month after surgery.

The primary measured outcome for the study, postpericardiotomy syndrome within 3 months, occurred in 35 patients (19.4 percent) assigned to colchicine and in 53 (29.4 percent) assigned to placebo.

There were no significant differences between the colchicine and placebo groups for postoperative AF (colchicine, 33.9 percent; placebo, 41.7 percent) or postoperative pericardial/pleural effusion (colchicine, 57.2 percent; placebo, 58.9 percent).

Adverse event rates occurred in 21 patients (11.7 percent) in the placebo group and 36 (20.0 percent) in the colchicine group, primarily because of an increased incidence of gastrointestinal intolerance (6.7 percent in the placebo group; 14.4 percent in the colchicine group). Discontinuation rates were similar in both groups.

"In this multicenter trial, perioperative administration of colchicine significantly reduced the incidence of postpericardiotomy syndrome after cardiac surgery but did not reduce the risk of postoperative AF and postoperative pericardial/pleural effusions by intention-to-treat analysis," the authors write. "About 20 percent of all patients enrolled in the trial discontinued study drug; this relatively high rate may have affected the overall efficacy of the drug, especially for postoperative AF prevention."

"The high rate of adverse effects is a reason for concern and suggests that colchicine should be considered only in wellselected patients."

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