INTERVENTIONAL CARDIOLOGY

Colchicine therapy prevents postpericardiotomy syndrome but not postoperative atrial fibrillation

The COPPS-2 study, published in *JAMA* and presented at the ESC Congress 2014, shows that colchicine can reduce the risk of some perioperative complications. Patients who undergo cardiac surgery often develop postpericardiotomy syndrome, atrial fibrillation (AF), or pericardial or pleural effusions. In the COPPS trial, colchicine treatment started 3 days after surgery showed promise in preventing these complications. The COPPS-2 trial was designed to assess whether colchicine should be used routinely and whether

starting colchicine therapy before surgery could improve the beneficial effects.

In this multicentre, double-blind study, 180 patients were randomly allocated to receive a placebo or colchicine starting 48–72 h before cardiac surgery and continuing for 1 month thereafter. Patients were followed up for 3 months, with postpericardiotomy syndrome events as the primary end point; secondary end points included development of AF and effusions.

Fewer patients in the colchicine group than in the placebo group developed postpericardiotomy syndrome (19.4% vs 29.4%; absolute difference 10.0%, 95% CI 1.1%–18.7%), whereas no significant differences were found in the rates of postoperative AF (33.9% vs 41.7%) or postoperative pericardial or pleural effusions (57.2% vs 58.9%).

The rate of adverse events (primarily gastrointestinal intolerance) was higher in the colchicine group than in the placebo group (20.0% vs 11.7%;

absolute difference 8.3%, 95% CI 0.76%–15.9%), leading the investigators to warn that “the high rate of adverse effects is a reason for concern” and suggesting that particular care should be taken when selecting patients for colchicine perioperative treatment. Nevertheless, no serious adverse effects were observed.

Results from the COPPS-2 study support the use of colchicine therapy for preventing postpericardiotomy syndrome. Nevertheless, additional studies are needed to confirm the efficacy of low-dose colchicine (0.5 mg per day) in preventing postoperative AF, the most common complication in patients undergoing cardiac surgery.

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