**COLCHICINE VERSUS PLACEBO FOR PREVENTION OF POST-PROCEDURAL ATRIAL FIBRILLATION: A SYSTEMATIC REVIEW AND META-ANALYSIS**

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*Introduction*: Inflammation has been implicated in post-cardiothoracic surgery and post-catheter ablation atrial fibrillation (AF).

*Hypothesis*: Colchicine, an anti-inflammatory drug, decreases the incidence of post-procedural atrial fibrillation.

*Methods*: We searched PUBMED, EMBASE and the Cochrane Library for randomized controlled trials comparing Colchicine to placebo for the prevention of peri-procedural AF. The primary outcomes were incidence of AF and total mortality. Secondary outcomes were stroke, total adverse events, gastrointestinal complaints, myelotoxicity, and length of stay (LOS). All endpoints were studied within 3 months of the procedure. Included articles underwent analysis via a random effects model.

*Results*: Of 96 retrieved entries, 7 papers from 5 studies were selected for inclusion. There was a total of 1160 patients with 806 males, and a mean age of 64.5. There were 113 recurrences of AF in 574 patients randomized to receive Colchicine and 184 recurrences in 586 patients from the placebo group (RR = 0.62 [0.48-0.8]). The finding remained significant on subgroup analysis of patients having cardiothoracic surgery and those having catheter ablation for preexisting AF. Similarly in 552 patients from 2 studies, the Colchicine treatment group had a shorter LOS (mean difference = -1.31 days [-1.86, -0.77]). There was however an increased incidence of total adverse events (52/349 vs. 29/347 HR=1.95 [1.2,3.17]), and GI side-effects (49/430 VS 20/427 HR = 2.56 [1.48,4.42]) with Colchicine therapy. Two studies reported that the incidence of death and stroke were similar amongst groups and two studies reported on myelotoxicity without events.

*Conclusion*: Colchicine significantly reduced post-procedural AF and in-hospital LOS in patients undergoing cardiothoracic surgery or AF ablation. The drug is also associated with an increased incidence of gastrointestinal side-effects.

