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## Table 1



## Cor et Vasa

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## Review article

# Statin therapy in the prevention of atrial fibrillation in the early postoperative period after coronary artery bypass grafting: A meta-analysis

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## Abstract

### Background

Postoperative atrial fibrillation (POAF) is observed in the early postoperative period in approximately every third patient after **coronary artery bypass grafting** (CABG). The **pathogenesis** of POAF is multifactorial and is not yet fully studied. In many studies, postoperative inflammatory response has been extensively investigated as a potential basic factor of POAF. It is known that **statins** have anti-inflammatory properties. In some studies, pre- and **perioperative** use of statins has shown the decrease of incidence of POAF after **CABG**.

### Objective

We conducted **meta-analysis** of randomized and observational studies of efficiency of statin therapy for the prevention of POAF after CABG.

## Material and methods

The meta-analysis included 15 clinical trials of statins in 9369 patients with performed CABG during the past 10 years. 5598 patients (59.75%) were taking statins and 3771 patients (40.25%) were not taking statins. The following outcomes observed in the early postoperative period were studied: incidence of POAF, total mortality rate, total stroke rate, and total rate of [myocardial infarction](#). The duration of hospitalization and levels of inflammatory markers before and after CABG were also assessed.

## Results

The statin therapy reduced the incidence of POAF after CABG (OR = 0.48, [95% CI](#): 0.35–0.67,  $P < 0.001$ ). Moreover, the statin therapy decreased the total length of hospital stay and levels of inflammatory markers in the blood serum.

## Conclusion

The results of our meta-analysis leave no doubt in the presence of anti-inflammatory and [anti-arrhythmic](#) effect of statin therapy. We confirmed the overall positive role of using statins before CABG for POAF prevention.

## Keywords

Atrial fibrillation; Coronary artery bypass grafting; Statin therapy

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