SHOULD ALL PATIENTS RECEIVE STATINS BEFORE MAJOR NONCARDIAC AND CARDIAC SURGERY?!!

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Statins inhibit the rate of conversion of acetate molecules into cholesterol by inhibiting HMG-CoA reductase, the rate-limiting step in cholesterol biosynthesis. The lipidemic effects of statins are associated with reduction in atherosclerotic plaque formation and stabilization of vulnerable atherosclerotic plaques at high risk for rupture. The nonlipidemic effects are because of the anti-inflammatory and immunomodulatory properties of the statins.

In case-control studies, statins have been associated with lower perioperative and long-term mortality after major noncardiac vascular surgery.

The Post- CABG Trial investigators found that, in addition to reductions in postoperative serum LDL levels, long-term statin administration was associated with a significant decrease in the progression of vein graft lesions and the incidence of graft occlusion. In addition to preserving vein graft function, statins have been shown to protect arterial bypass grafts.

Till now there is no evidence based answers for all the questions concerning the use of perioperative statins routinely for patients undergoing major noncardiac surgery except for those with RCRI more than 3 while those undergoing cardiac surgeries there is a great evidence of the benefits of using perioperative statins but with unanswered questions about when to start statins? and the hazards of discontinuation.

We still need prospective and randomized studies to recommend the routine use of perioperative statins.

References