Anesthesiologists are usually confronted with patients having cardiac disease undergoing either elective or emergency noncardiac surgery. Those patients are at an increased risk for serious perioperative complications, including (MI), arrhythmias, and pulmonary insufficiency. Since the relative percentage of patients with cardiac disease presented for anesthesia and surgery are increasing, several strategies to improve cardiovascular outcome for those patients are suggested.

The association of inflammatory mediators, cardiovascular disease, and outcome (short and long term) is increasingly recognized. The perioperative period is characterized by tissue injury and proinflammatory events. The relationship between the type, depth of anesthesia, surgery, the inflammatory response, and long-term outcome may exist. It may persist beyond discharge from recovery room and even discharge from the hospital. The direct impact of hyperglycemia on cardiovascular mortality in patients with or without diabetes is a central theme of current research, and several investigations demonstrated that mortality resulting from acute myocardial infarction is increased, if diabetes is not controlled at the time of hospital admission. Aggressive control of the blood glucose concentration using a constant insulin infusion is indicated intraoperatively. Compelling evidence indicates that aggressive management in the perioperative period may substantially decrease the adverse consequences of myocardial ischemia and infarction.

The objective of this presentation is to discuss the factors that modify cardiovascular risks during operative intervention (e.g. Blood glucose level, B-blockers, HMG COA-reductase inhibitors, Angiotensin converting enzyme inhibitors, and anesthetic depth).