

Perioperative Myocardial Infarction

Prof GDPuri

Department of Anaesthesia and Intensive Care,
Sub Dean , Post Graduate Institute of Medical Education and Research,
Chandigarh, 160012
India

Purpose - Worldwide, more than 300 million adults undergo non-cardiac surgeries each year. Amongst them, as many as 10 million surgeries have major adverse cardiovascular events(MACE) that lead to worst clinical outcomes. As many as 5% of patients undergoing noncardiac surgery without previous cardiac history have a major cardiac complication within the first 30 postoperative days. With the aging population, more number of geriatric patients with high cardiovascular risks are coming for non cardiac surgery each year leading to increased risk of adverse perioperative cardiac events.

Perioperative myocardial injury/infarction has recently been identified as an important but underappreciated complication associated with high mortality rate. The aim of the presentation will be to review the latest available evidence for prevention, early detection, treatment, and subsequently improving the outcome of perioperative myocardial infarction.

Principal findings- Amongst the recent guidelines, role of preoperative non invasive cardiac testing has been invalidated. The assessment of cardiac biomarkers in preoperative period have been shown to be cardinal in determining the subsequent requirement of non invasive cardiac testing. Moreover, since the definition of perioperative myocardial infarction includes elevation of cardiac biomarkers with or without occurrence of cardiac symptoms, the sequential estimation of pre and postoperative baseline troponin levels has been adjudicated as prime predictor of postoperative mortality.

Conclusion-

Detailed and comprehensive risk assessment is essential for preoperative management of patients at risk for perioperative myocardial infarction. The preoperative evaluation including provision of different tests should be guided by patient's history and risk assessment.

Though newer advances in diagnostic tests for high risk patients have been made, a combined holistic approach involving cardiologists, anaesthesiologists and surgeon is required to not only reduce the economic burden on the patient but also to avoid unnecessary delays and ultimately leading to better perioperative outcome.

