

Perioperative cardiac complications: Are we looking at the right risk factors?

Ashraf Fayad

University of Ottawa, Canada

Cardiovascular morbidity and mortality represent a major burden in patients undergoing non-cardiac surgery. About one million patients worldwide undergoing non-cardiac surgery, experience adverse cardiac events that include nonfatal myocardial infarction (MI), heart failure, nonfatal arrhythmias and cardiac death. Numerous investigations have described the relationship between preoperative patient's characteristics and the risk of cardiovascular adverse events. Identification of cardiac risk factors facilitates surgical patients stratification and outcomes prediction. Perioperative studies for the identified cardiac risk factors were extensive and led to the development of cardiac risk index. Minimal or no attention were given to low risk groups. However, studies have shown that low-risk surgical patients could be at a higher risk of perioperative morbidity and mortality than originally thought and that the use of cardiac risk index may represent a challenge to predict outcomes. The need to explore the perioperative research in low-risk patients may be warranted. In addition, intraoperative and postoperative adverse events may represent a major role to predict the outcomes in both high risk and low risk. However, both intraoperative and postoperative events are usually ignored in the prediction of the outcomes. The challenge could be further explored by looking at the possibility of missing some important cardiac risk factors. For example, perioperative diastolic dysfunction is not well studied and is not recognized as a risk factor in patients undergoing non-cardiac surgery. Emerging perioperative data suggests that diastolic dysfunction may deem to be a missed cardiac risk factor and further studies are needed to explore its outcomes impact. Finally, with the advancement in diagnosis and treatment of different cardiac pathology, a revisit of perioperative cardiac risk factors and adverse events may be required on regular basis.

Biography

Fayad is an Associate Professor at the Department of Anesthesiology, University of Ottawa, Ottawa, Canada. He is the Chair of Perioperative Medicine Section at the Canadian Anesthesiologists Society, the Director of the perioperative Echocardiography Program for non-cardiac surgery, University of Ottawa. Fayad's main research interest is Perioperative Medicine. He has special interest in perioperative myocardial ischemia, Perioperative diastolic dysfunction. Fayad has secured research grants both as the PI and co-investigator in many perioperative studies with many publications. He has presented in many national and international meetings.

fayad@rogers.com