CARDIOVASCULAR ASSESSMENT IN NONCARDIOVASCULAR SURGERY: WHAT EVIDENCES SAY?

ARUN MASKEY
Professor and coordinator of DM Cardiology, National Academy of Medical sciences, Kathmandu, Nepal

Annually more than 300 million patients (about 5% of the world population) undergo major surgery worldwide. Nearly 85% of major operations are non-cardiac surgical procedures. Proper preoperative evaluation is important to reduce cardiovascular morbidity and mortality in patients undergoing non-cardiac surgery. Cardiac risk is determined by two main factors: patient-related risk and surgical risk. Timing of surgery (Immediate, Urgent, time-sensitive, elective), type of surgical approach (laparoscopy, vascular and endovascular procedure, open surgeries), risk of surgery (Low, intermediate, high surgical risk) determine surgical risk. Patient-related risk is assessed by patient’s age, the presence of cardiovascular risk factors (e.g. smoking, hypertension, diabetes, dyslipidaemia,) or established cardiovascular disease, and comorbidities (heart failure, arrhythmia etc.). In emergency surgery preoperative evaluation is limited as saving life is more important. In elective surgery patient related risk factors, comorbidity, associated cardiovascular diseases, timing and risk of surgery, functional capacity determine further preoperative evaluation with necessary investigations like ECG, Echo, laboratory investigations, biomarkers, stress test, coronary angiogram etc.

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