PREOP CARDIOLOGY EVALUATION DECREASES PERIOPERATIVE MI

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OUTLINE
• CAD in vascular patients
• Periop MI
• Strategies to decrease complications

Overlap of Atherosclerotic Disease

Patients with one manifestation often have coexistent disease in other vascular beds

Incidence of Cardiac Complications
• Surgery in U.S.:
  - 28 million / year
  - 8 million CAD
  - 1 million cardiac
  - Vascular: 6.2%

Preoperative Optimization
• Risk factor modification:
  • Hypertension
  • Diabetes
  • Hyperlipidemia
  • Smoking
  • Diet
  • Exercise

Disclosures
• None
Pharmacotherapy
- ACE inhibitors
- β-blocker
- Statin
- Antiplatelet:
  - Aspirin
  - Plavix
  - Other
  - Single vs. dual

Preop Cardiac Evaluation
- Variable
- Local
- Protocols
- Guidelines

Modified Lee Index: RCRI
- Age
- Hx of CAD
- CHF
- Creatinine >2
- Smoking
- IDDM
Derivation and Prospective Validation of a Simple Index for Prediction of Cardiac Risk of Major Noncardiac Surgery

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Background: Cardiac complications are important causes of morbidity and mortality after noncardiac surgery. The purpose of this study was to develop and validate an index for prediction of cardiac complications.

Methods and Results: We studied 413 patients aged 50-70 years undergoing elective major noncardiac procedures in a tertiary care teaching hospital. The main outcome measure was major cardiac complication. Major cardiac complications occurred in 24% (90/413) patients assigned to the derivation cohort. The independent predictors of complications were identified and included in a new cardiac risk index. Risk index is scored for patients undergoing OAR, EVAR, and open bypass surgery. The index can be used to determine risk-adjusted mortality, length of stay, and postoperative return to the operating room. The derivation cohort showed a better performance of the new cardiac risk index compared to other published risk prediction indexes.

Conclusions: The revised cardiac risk index for noncardiac surgery can identify patients at higher risk for complications. This index can be used for identification of candidates for further risk stratification with noninvasive technologies or other interventions, as well as to predict patients in whom different treatment approaches may be helpful (JAMA, 1999;281:1059-66).

Vascular Intervention Collaborative

- State-wide registry
- 29 hospitals
- Prospective
- Validated
- Risk-adjusted

Cardiology Consults

- 30-day pMO: Troponin elev No difference

Summary

- Preoperative cardiac evaluation varies
- Guidelines and risk stratification helpful
- Cardiology consultation = lower MI
- Resource utilization