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Non Cardiac Surgery in CAD Patients

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Epidemiology

- over 300 million patients worldwide undergo surgery
- 3 percent are expected to have a major adverse cardiovascular and cerebrovascular event before discharge or within 30 days
- Nearly one-third of these events are due to perioperative myocardial infarctions
- With an incidence over 10%, perioperative myocardial injury (with or without infarction) is a common contributor to short- and long-term morbidity and mortality of patients undergoing non cardiac surgery
- Despite being largely asymptomatic, perioperative myocardial injury increases 30-day mortality nearly 10-fold

Patient Scenario

- A 72-year-old man is scheduled for major open abdominal surgery for obstructing colon cancer.

- The surgery is classified as time-sensitive: it cannot be postponed for an extended period because further delay may adversely affect the patient's outcome, but it is not an emergency.

Cardiovascular history

- Coronary artery disease for 8 years
- Previous myocardial infarction 4 years ago
- NSTEMI 6 weeks ago
- PCI with drug-eluting stent (DES) to the LAD 6 weeks ago
- He currently has recurrent ACS symptoms, with dynamic ischemic ECG changes and elevated cardiac troponin
- Heart failure with mildly reduced EF (LVEF 40–45%)

Other comorbidities

* Hypertension – 15 years
* Type 2 diabetes mellitus – 12 years
* Dyslipidemia – 12 years
* CKD stage 3a – 5 years
* Peripheral arterial disease – 4 years
* Former heavy smoker
* Reduced functional capacity, approximately <4 METs
* Frailty related to advanced age and malignancy

Current medications

* Aspirin 81 mg/day
* Clopidogrel 75 mg/day
* Atorvastatin 80 mg/day
* Bisoprolol 5 mg/day
* Losartan 50 mg/day
* Metformin
* Empagliflozin
* Nitroglycerin as needed

Thank You for Your Attention