

2. Patients with perioperative NSTEMI should receive GDMT as recommended for nonsurgical patients with spontaneous MI. In some cases, GMDT may need to be tailored based on hemodynamic status and bleeding risks. Medical therapy should include at least 1 antiplatelet, provided the benefits outweigh the bleeding risks, and initiation of a high-intensity statin. In patients whose hemodynamic status permits, beta blockers, ACEi, and nitrates may be considered for both symptomatic relief from angina and long-term cardiovascular risk reduction.
3. ICA may be appropriate in selected perioperative patients with postoperative NSTEMI. In retrospective observational analyses, invasive management of MI was associated with lower in-hospital mortality compared with conservative management.² However, given the potential need for systemic anticoagulation and longer-term antiplatelet therapies after PCI, the decision to pursue invasive treatment should be balanced with the risk of residual postoperative bleeding, type of surgery, and time since surgery. The severity of clinical presentation, peak cTn concentration, presence of ischemic electrocardiographic changes, and other patient-specific factors should also be considered.³ Individuals with ongoing symptoms not responsive to GDMT, evidence of hemodynamic instability, persistent biomarker elevation, or imaging evidence of new regional wall motion abnormalities or reduced ventricular function may derive the greatest benefit from urgent ICA in the perioperative period. Decisions to pursue invasive management of MI after NCS should be undertaken in a team-based manner, involving the surgeon, anesthesiologist, and cardiologist.

10. SPECIAL POPULATIONS

10.1. Preoperative Evaluation Before Liver and Kidney Transplantation

Synopsis

Patients with end-stage kidney or liver disease have a higher prevalence of cardiovascular risk factors and CAD than the general population¹⁻⁶ and are at risk for other cardiovascular conditions, such as HF and PH.⁷ Recent studies suggest that a targeted approach to preoperative screening for CAD before kidney transplantation appears to be associated with similar postoperative outcomes than with routine preoperative testing for CAD. Data from the U.S. Renal Data System and Medicare claims reported that more frequent invasive or noninvasive CAD testing in the year before kidney transplantation was not associated with lower rates of 30-day posttransplant death or acute MI.⁸ In the ISCHEMIA-CKD (International Study of Comparative Health Effectiveness With Medical and

Invasive Approaches–Chronic Kidney Disease) trial, which enrolled nonsurgical adults with advanced CKD, CCD, and moderate to severe ischemia on stress testing, an initial invasive approach of coronary angiography with revascularization plus medical therapy did not reduce the risk of death or MI versus initial medical therapy alone at a median follow-up of 2.2 years.⁹ The 2022 AHA scientific statement “Emerging Evidence on Coronary Heart Disease Screening in Kidney and Liver Transplantation Candidates”¹ summarizes the contemporary data and defines approaches to screening and management of CAD in candidates for kidney and liver transplantation.

10.2. Obesity and Bariatric Surgery

Synopsis

Obesity is a growing global epidemic and affects more than one-third of the U.S. adult population.¹⁻³ Bariatric surgery is the most effective and long-lasting weight loss intervention for patients with body mass index ≥ 35 kg/m², resulting in significant weight loss and the improvement or resolution of obesity-related diseases, including type 2 diabetes, hypertension, and dyslipidemia.⁴⁻⁶ In a population-based retrospective cohort study (n=2638), bariatric surgery was associated with a lower incidence of MACE in patients with CVD and obesity over a median 4.6-year follow-up.⁷ Bariatric surgery patients tend to be young and may be selected for lower-risk features; however, bariatric surgery is not without risks. In large meta-analyses, perioperative MI was identified in 0.37% of bariatric surgeries, and the all-cause mortality rate was reported in 0.08%.⁷⁻⁹ In a retrospective, multicenter study (n=494,611) of patients who underwent Roux-en-Y gastric bypass or sleeve gastrectomy,¹⁰ prior cardiac history was associated with greater risks of perioperative cardiac arrest and 30-day mortality. In this study, sleeve gastrectomy was associated with fewer adverse events than Roux-en-Y. Another observational study of patients with obesity undergoing bariatric surgery reported that a history of ACS or HF was associated with increased risks of perioperative cardiovascular complications.¹¹ Thus, careful attention to history and risk factors during preoperative assessments is essential. Patients with obesity are increasingly prescribed GLP-1 receptor agonists to achieve weight loss. Considerations regarding the discontinuation of these drugs before NCS are addressed in [Section 7.8 \(“Perioperative Management of Blood Glucose”\)](#).

11. COST-VALUE CONSIDERATIONS

11.1. Cost-Value Considerations

Health economics seeks to assess the value (eg, cost versus health benefit) associated with use of medical technology. For medical therapies, the relationship