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Intraoperative Blood Pressure Target in a High Risk Patient undergoing Superior Mesenteric Artery Embolectomy

Current guidelines recommend maintaining intraoperative mean arterial pressure (MAP) above 65 mmHg for non-cardiac surgery patients to ensure adequate end-organ perfusion. Studies show that low MAP during non-cardiac surgery is associated with acute kidney injury, myocardial injury, increased mortality, and overall morbidity. Here, we present the case of a 65 year old male found to have a long-segment occlusion of the superior mesenteric artery. The patient had severe comorbidities, including atrial fibrillation, coronary artery disease (CAD), heart failure with reduced ejection fraction (HFrEF) of 25%, cerebrovascular accident (CVA) with residual right-sided weakness, and peripheral artery disease complicated by acute limb ischemia. He also had poor medication compliance and inadequate follow-up with his primary care physician. A superior mesenteric artery embolectomy was planned and performed with a high blood pressure (BP) goal—maintaining systolic BP in the 170s—to stay within 20% of his baseline BP. Due to his complex comorbidities, anesthetic management was particularly challenging. His poor ejection fraction required a lower BP goal to avoid increase in myocardial oxygen demand, while his poorly managed CAD and PVD necessitated high BP targets to sustain end-organ perfusion. This case highlights the frequent clinical equipoise associated with blood pressure management and the importance of tailoring individualized anesthetic plans.