

No Scope, No Gas: Regional Anesthesia for Open Inguinal Hernia Repair in Severe Cardiopulmonary Disease

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BACKGROUND

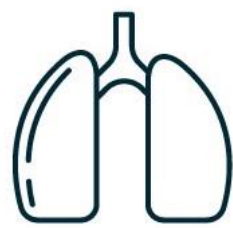
Patients with complex medical comorbidities often require careful anesthetic planning to minimize perioperative risk. Although laparoscopic and robotic approaches have become common, the physiologic implications of pneumoperitoneum and Trendelenburg positioning can be particularly detrimental in high-risk individuals. In such patients, regional anesthesia for an open approach may offer meaningful advantages by avoiding induction-related hemodynamic instability and the need for positive-pressure ventilation.

CASE INTRODUCTION

64-year-old male with chronic right inguinal hernia presented to the emergency room with chest pain, shortness of breath, and right abdominal pain associated with the inguinal hernia, reducible prior to coming to ER



CAD s/p PCI 2021 and 2023 (DES of LCX)
Combined ischemic/nonischemic cardiomyopathy
Recent TTE demonstrating LVEF 10-15%, s/p ICD
HTN



Severe pulmonary hypertension
COPD



Substance use disorder (marijuana, cocaine, tobacco)
Class I obesity (BMI 31.22 kg/m2)

ANESTHETIC MANAGEMENT

Discussion with surgical team regarding safety of GA and laparoscopic/robotic approach
Plan for open repair with regional anesthesia and sedation

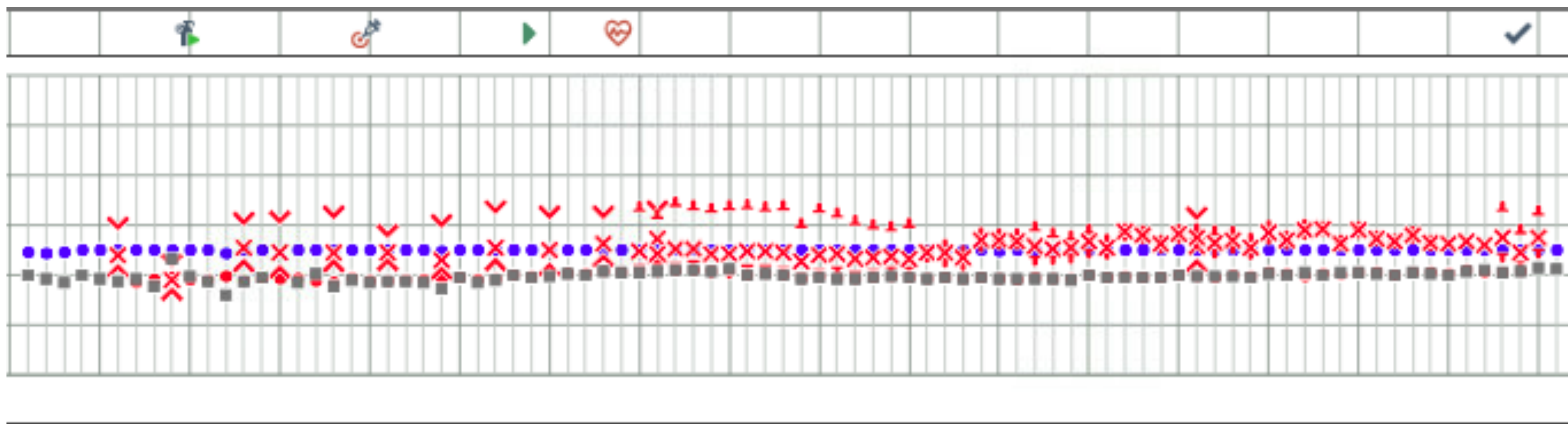


Figure 1. Hemodynamic components of intraoperative course

ILIOINGUINAL BLOCK

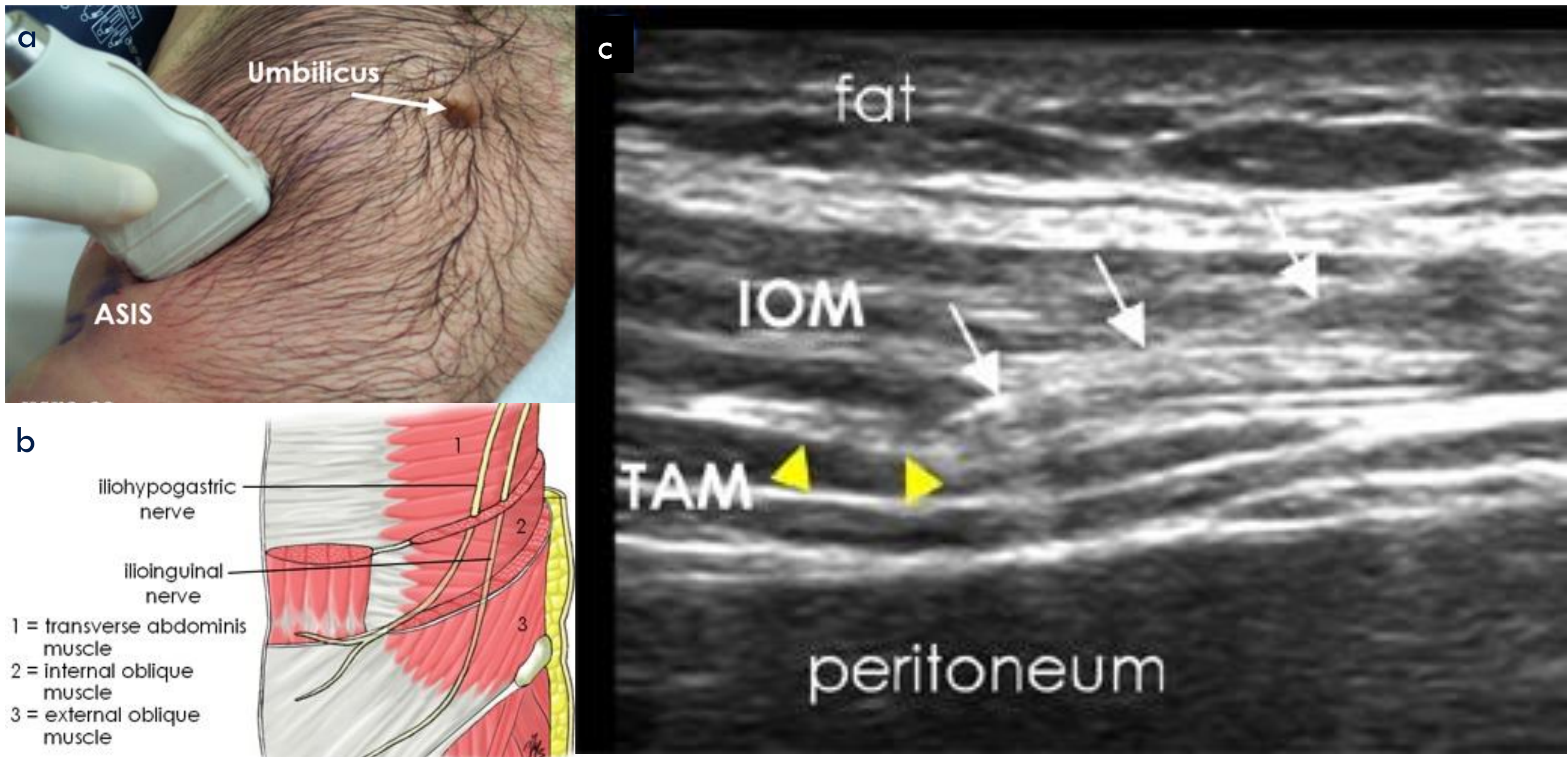


Figure 2. (a) ilioinguinal block landmarks and probe orientation (b) innervation of anterolateral abdominal wall (c) in-plane approach with white arrows indicating needle and yellow arrowheads indicating location of ilioinguinal nerve

DISCUSSION

Multiple cardiopulmonary diseases and polysubstance use increase perioperative risk, exacerbated in the context of laparoscopic/robotic surgeries...

- > Insufflation
- > Positioning (typically steep Trendelenburg)

Regional anesthesia (RA) with an open approach to repair offered a safer alternative

- > Preserved spontaneous ventilation
- > Avoided the hemodynamic fluctuations
- > Eliminated the need for insufflation

RA utilization may be limited by

- > Patient habitus
- > Anatomical variability
- > May not provide adequate anesthesia

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