ANNUAL SCIENTIFIC MEETING
IMMERSE
IN PERFECTION
ADVANCES IN COSMETIC SURGERY

Introduction

Tumescent anesthesia has become tremendously popular in cosmetic surgery and other specialties. However, the field of general surgery has not widely adopted tumescent anesthesia.

Case Presentation

I] Emergency Department Course:

- 81-year-old male nursing home resident with very limited mobility
- A. fib, T2DM, diabetic neuropathy, hypertension, hyperlipidemia and history of CVA 4 years prior. The patient also had a chronic right inguinoscrotal hernia.
- Presented with strangulated hernia, sepsis, A fib rapid RVR, abd compartment, PVR

II] Pre-Operative Course:

- The surgical and anesthesia teams conducted a collaborative discussion
- ASA 4E status, hemodynamic instability, portal venous air, gangrenous bowel, strangulated hernia, poor functional status, and lung infiltrates on imaging.
- Spinal anesthesia was ruled out secondary to apixaban therapy.
- Plan → Tumescent anesthesia with monitored IV sedation.

III] Operative Surgical Course:

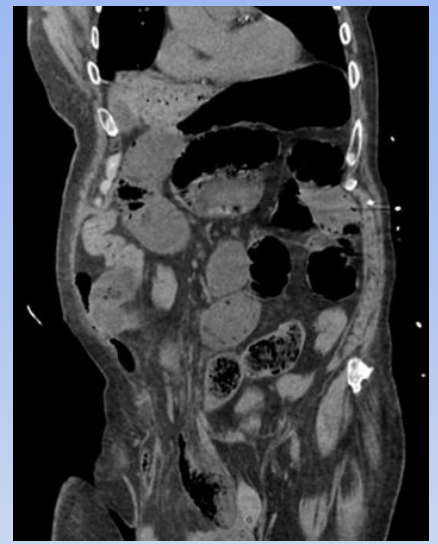
- Lidocaine 500mg + epinephrine 1mg in 1000 ml in 1 L LR
- Total tumescent volume infiltrated during the surgery was 1,700 ccs (850 mg lidocaine or 8.5 mg . kg,-1)
- The procedure was:
  1. Ex Lap
  2. Extensive LOA
  3. Repair of strangulated large right inguinoscrotal hernia
  4. SB Rsxn
  5. Double Barrell Ileostomy
  6. Complex abdominal wall closure

IV] Operative anesthesia course:

- Operative time was 6 hours and 2 minutes.
- 2 boluses of midazolam 1mg.
- Intermittent boluses of fentanyl 25 mcg throughout for a total of 500 mcg.
- Propofol 10 - 20 mcg . kg . min-1
- Boluses of ketamine 10mg, for a total of 50 mg
- Diltiazem at 5 mg . hr,-1, esmolol boluses totaling 170 mg.
- Boluses of vasopressin 1mg (total 6mg), and a phenylephrine drip was started and titrated as needed keeping MAP above 65 mmHg.

V] Postoperative Course:

- PACU: alert and oriented x 4.
- Within a few hours, the patient was taken off the phenylephrine drip.
- NG tube was removed on POD 3.
- His right IJ central venous catheter was removed, and a PICC line was placed on POD 4.
- Intermittent diltiazem infusions were required through POD 11, but he was eventually transitioned to oral metoprolol and digoxin. HR was controlled in the 80s to 100s at the time of discharge.
- At the time of discharge, he was tolerating a regular diet, and having regular bowel movements through his ileostomy. He maintained normal oxygen saturation on room air, and he was transferred to the floor on POD 12. He was then discharged back to the nursing home on POD 13.



Discussion

- Gangrenous bowel → very poor prognosis.
- Literature review shows a mortality rate higher than 95% if the condition is not treated appropriately.
- Operative intervention reduces the mortality rate to approximately 70%.
- In our case, General anesthesia would have posed a very high risk in this patient with an expected prolonged postoperative course, prolonged ICU stay, and the possible need for a tracheostomy eventually if he survived general anesthesia.
- Tumescent anesthesia is used routinely in cosmetic surgery, and general anesthesia is commonly used in general surgery. Here, we implemented what can be described as a crossover between specialties where tumescent anesthesia was used in an extremely critical general surgery patient.
- Limited literature (all elective)
- Local anesthesia is not a common approach for bowel cases, nor is there an expectation for it to become common in the near future.
- It is another potential tool in our armamentarium that we should keep in mind and use if the need arises.

Conclusion

- Tumescent anesthesia with MAC is here reported as an alternative to general anesthesia in the care of a moribund patient with multiple comorbidities requiring open abdominal surgery.
- Close cooperation between the surgeon and the anesthesiologist made the successful conduct of this case possible.

American Academy of Cosmetic Surgery