Safe Outpatient Management of Minimally Invasive Heller Myotomy

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Background

"Early Recovery After Surgery" or ERAS programs have become increasingly prevalent, and home recovery has now become standard practice for many operations, e.g. inguinal hernia repair, laparoscopic cholecystectomy.

Despite these advances in practice, **same-day surgery for foregut operations is still rare.**

This is particularly true of **minimally invasive Heller myotomy** (MI-Heller), likely due to the relative rarity and complexity of these cases, as well as a perceived necessity for postop testing.

We began performing MI-Hellers on an outpatient basis Sep 2018, and report our 15-month experience.

Technique

- routine intraoperative submerged air leak test via NGT
- no postop radiologic studies
- start clear liquids in PACU → full liquids at home
- telephone f/u appointment with the surgeon on POD1 for all pts

Methods

- retrospective review of prospectively-maintained single-surgeon database
- consecutive MI-Heller cases planned for same day discharge
  - both laparoscopic and robotic
  - same day = on POD0, from post-anesthesia recovery unit (PACU)
- <u>primary outcome</u>: **discharge type**
- <u>secondary outcomes</u>:
  - **complications**
  - **reasons for admission**

Results

Among 45 consecutive MI-Hellers planned for same-day discharge:

- **28 (62%) were discharged successfully on POD0**,
- 16 (36%) on POD1, and
- 1 (2%) on POD4.

Reasons for overnight admission (with subsequent discharge on POD1) were:

- patient or staff unwilling/unprepared (e.g. no ride) (7),
- nausea/vomiting (3), and
- surgeon's discretion due to patient comorbidities or case complexity (e.g. redo cases, combined operations) (6).

Reason for longer admission (in the single patient discharged on POD4) was: new-onset atrial fibrillation (1).

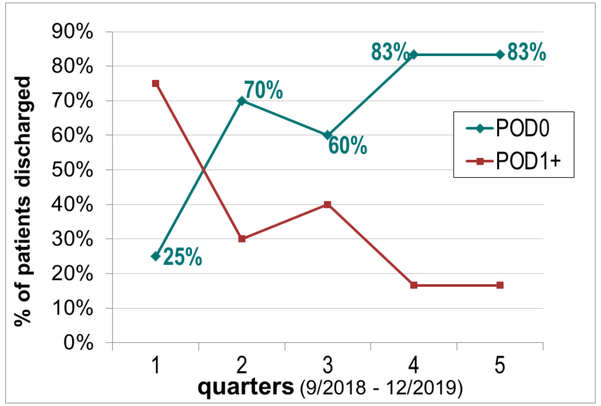
The complication rate (1 arrhythmia) was 2%, with 0% leak.

With median follow-up of 381 days, there were no new complications or readmissions after discharge.

The initial success rate of same-day discharge was low—only 10% of the first 10 cases (1 pt) discharged on POD0. We addressed these early failures through:

- patient education and engagement
- education and engagement also of all perioperative staff, including:
  - clinic MAs and surgery coordinators
  - anesthesia personnel
  - preoperative & postoperative nursing
- implemented from initial consult through follow-up (whole periop experience)

These measures more than doubled the rate of successful same-day discharge by the 2nd quarter (3mo period) of outpatient MI-Heller management, and this effect was sustained.



Conclusions

In this largest published series of same-day discharge after MI-Heller, **outpatient management of these patients was feasible and safe.** Universal investment from involved staff, leveraging technology to allow close follow-up without necessitating in-patient admission, and surgeon experience were essential for successful same-day discharge.