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# The Impact of Obesity on Robotic Inguinal Hernia Repair: Patient Selection and Outcomes

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## BACKGROUND

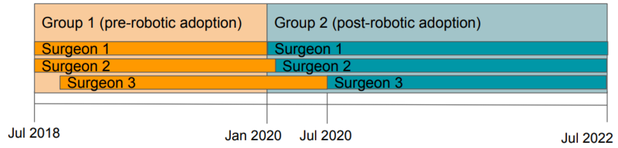
- Increased BMI is associated with increased operative time for robotic inguinal hernia repair (RIHR) suggesting that obesity is associated with more complex cases[1]
- We previously demonstrated that there was no increase in complication rate after adopting the robotic platform for inguinal hernia repair[2]
- We hypothesized that in our early adoption period we exhibited a selection bias towards low BMI patients

## PURPOSE

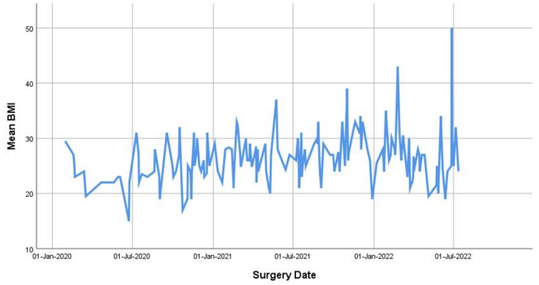
To review the initial experience for adopting robotic surgery for inguinal hernia repair and determine if there was an association between surgeon experience and patient BMI

## METHODS

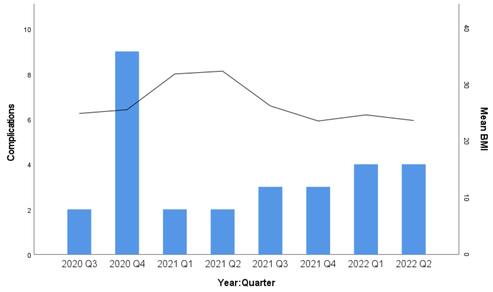
- Retrospective, QI EHR query covering all inguinal hernia repairs over a 4-year period for 3 surgeons
- Analysis was performed using t-test and ANOVA for continuous variables and chi-square for count data
- Data abstracted from EHR
  - patient demographics
  - hernia characteristics
  - operative characteristics
  - complications
- Robotic platform adopted over a 6-month period by three surgeons
- Surgeries divided into two groups: one encompassing all pre-robotic surgeries for every surgeon and one all post-robotic




## RESULTS




BMI of all patients undergoing RIHR over time




Number of complications and mean BMI for patients who experienced a RIHR complication over time

## RESULTS (cont.)

| | | Before n = 68 | After n = 252 | p-value |
|---|---|---|---|---|
| Age (years ± SE) | | 59 ± 1.7 | 57 ± 1.0 | 0.30 |
| Male | | 60 | 219 | 0.77 |
| BMI (cm/kg ± SE) | | 25.9 ± 0.57 | 26.5 ± 0.29 | 0.41 |
| ASA | 1 | 11 | 45 | 0.43 |
| | 2 | 31 | 128 | |
| | 3 | 24 | 77 | |
| | 4 | 2 | 2 | |
| Recurrent Repair | | 15 | 37 | 0.14 |
| Complications | | 15 | 35 | 0.10 |

Inguinal hernia repairs before and after robotic adoption

## CONCLUSIONS

- We demonstrated that over time we operated on patients with a widening range of BMI as we gained experience with RIHR
- We saw no increase in the number of complications over time and there appeared to be no correlation between BMI and complications

References:
1. Chinn J, Tellez R, Huy B, et al. Comparison of BMI on operative time and complications of robotic inguinal hernia repair at a VA medical center. *Surg Endosc*. 2022;36(12):9398-9402. doi:10.1007/s00464-022-09259-x
2. Dacus W. Introduction of the Robotic Surgical Approach in an Academic Hernia Surgical Practice. Oral presented at: American Hernia Society 2022 Annual Meeting; September 16, 2022; Charlotte, NC.