Impact of Prior Intrabdominal Cancer on Subsequent Ventral Hernia Repair

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INTRODUCTION

- Incidences of ventral hernia after abdominal oncologic resections have been reported 35-41% compared with 20% in patients who undergo surgery for benign conditions.
- These cases can be challenging to manage due to a higher propensity of postoperative complications such as wound complications, hospital acquired infections, DVT/PE etc.
- Currently there is a lack of data evaluation the outcomes of ventral hernia repair (VHR) in patients with a history of Intra-abdominal Cancer (IAC)

HYPOTHESIS

- We hypothesized patients with a history of IAC would have increased length of stay, 30-day post-op complications, and a higher rate of hernia reoccurrence

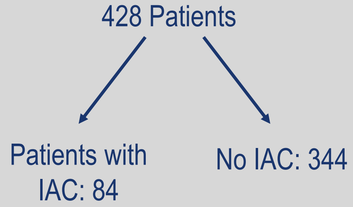
STUDY PURPOSE

- We aimed to analyze outcomes in patients with a history of IAC undergoing VHR at our institution.

METHODS

- A prospectively maintained database was retrospectively reviewed to identify patients undergoing ventral hernia repair from 1/2014 to 8/2021
- Patients undergoing VHR with and without a history of IAC were analyzed and compared
- Outcomes were compared in a matched cohort that was developed by propensity score matching

Figure 1 Patient Stratification



RESULTS

Table 1: Demographics info

	IAC (n=84)	No IAC (n=344)	P value
Age (years) - mean (SD)	67.8 (9.9)	55.4 (14.5)	< 0.01[1]
Sex			0.03[2]
Male	34 (40.5%)	185 (53.9%)	
Female	50 (59.5%)	158 (46.1%)	
Hypertension	52 (61.9%)	158 (46.5%)	0.01[3]
Diabetes	27 (32.1%)	59 (17.3%)	< 0.01[3]
COPD	8 (9.5%)	16 (4.7%)	0.11[3]
ASA ≥ 3	66 (80.5%)	173 (56.0%)	< 0.01[3]
Approach for repair (detailed)			< 0.01[3]
Open	57 (67.9%)	232 (68.0%)	
Laparoscopic	10 (11.9%)	78 (22.9%)	
Robotic	17 (20.2%)	31 (9.1%)	

Table 2: Outcome Comparison

	IAC (N=84)	No IAC (N=344)	P value
Length of stay - median (IQR)	2.0 (1.0, 5.0)	2.0 (0.0, 5.0)	0.08[4]
Hernia recurrence	12 (14.6%)	44 (13.5%)	0.86[3]
30-Day SSI (Y/N)	6 (7.2%)	16 (4.7%)	0.41[3]
30-Day surgical site occurrence (SSO)	13 (15.7%)	51 (15.0%)	0.87[3]

Table 3: Matched Cohort Analysis

	IAC (N=43)	No IAC (N=43)	P Value
Length of stay - median (IQR)	2.0 (1.0, 4.0)	3.0 (2.0, 5.0)	0.14[4]
Hernia recurrence	4 (9.3%)	8 (18.6%)	0.35[3]
30-Day SSI (Y/N)	1 (2.3%)	1 (2.3%)	1.00[3]
30-Day surgical site occurrence (SSO)	5 (11.6%)	6 (14.0%)	1.00[3]
30-Day SSO requiring treatment	4 (9.3%)	5 (11.6%)	1.00[3]

* Matched by Ventral Hernia Working Group Grade, Approach for Repair and Hernia Size

CONCLUSION

- Patients with a history of IAC do not have a significantly increased risk for postoperative complications after VHR
- Patients with a history if IAC can undergo VHR with good outcomes without significant risk for postoperative complications.