Impact of obesity on 30 day and 1-year outcomes after eTEP ventral hernia repair

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BACKGROUND

- Obesity with BMI >35 kg/m^2 has been described as an independent risk factor for increased morbidity after ventral hernia repair (VHR
- Robotic enhanced-view totally extraperitoneal (eTEP) hernia repair is a novel approach that is pushing the boundaries of hernia surgery.

METHODS

- Retrospective single institution cohort study

Patient demographics and comorbidities, perioperative variables, 30-day and 1 year outcomes were stratified according to BMI < 35 kg/m^2 (acceptable risk) and BMI ≥35 kg/m^2 (high risk)

RESULTS

- Total of 97 eTEP procedures from April 2018-2020
- 60 patients in acceptable risk group (BMI <35) vs 37 in high risk (BMI >35)
- No significant difference in 30-day outcomes including SSI, seroma, hematoma, ileus, SBO, ER visits, readmissions, or reoperations
- Hospital LOS was equivalent for both groups

Table 1. Demographics and patient characteristics

	BMI <35kg/m2	BMI ≥ 35 kg/m2	P value
Age* (± STD)	55.0(±13.0)	53.9(±11.7)	0.67
Male (%)	41.7	32.4	0.36
Avg BMI* (± STD)	28.8 (±4.0)	41.0(±4.9)	-
Diabetes (%)	15	29.7	0.08
ASA ≥ 3 (%)	0	2.7	n/a
Smoker (%)	16.7	10.8	0.43

	BMI <35kg/m2 N=60	**BMI ≥ 35 kg/m2 N=37**	**P value**
Length of stay, days (±STD)	1.4 (±1.1)	1.3 (±1.4)	0.83
SSI (%)	5.0	8.1	0.54
Seroma (%)	10.0	8.1	0.76
Hematoma (%)	3.3	2.7	0.86
Ileus (%)	1.7	2.7	0.73
SBO (%)	1.7	0	n/a
Any complication (%)	10.0	13.5	0.60
Reoperation (%)	5.0	2.7	0.58
ER visit (%)	3.3	10.8	0.14
Hospital readmission (%)	5.0	8.1	0.54
Number of recurrent hernias (%)	8.3	8.1	0.97

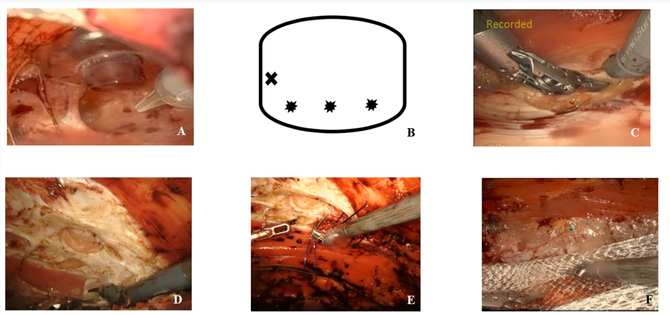


Figure 2: eTEP Operative Technique Starts with gaining extraperitoneal access (a) and places ports laterally (b). The retrorectus space is dissected (c) to expose the hernia defect (d), which is then closed with barbed suture (e) before placing mesh.

CONCLUSIONS

- The robotic eTEP approach is safe in high-risk patients with elevated BMI (≥35 kg/m^2)
- Recurrence rates were similar at one year post-operatively
- Further study is needed to determine upper limits of BMI for minimally invasive hernia repair using advance techniques

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