ROBOTIC-ASSISTED SUGARBAKER REPAIR FOR PARASTOMAL HERNIAS: A SINGLE SURGEON EXPERIENCE

Courtland Polley, MD[1]; Mohammad Alomari, MD[1]; Mark Falstin, MBBCH[1]; Aaron Spaulding, PhD[2]; Michael Edwards, MD[1]
1. Department of Surgery, Division of Advanced GI and Bariatric Surgery, Mayo Clinic, Jacksonville, Florida
2. Mayo Clinic, Robert D. and Patricia E. Kern Center, Division of Health Care Delivery Research Jacksonville, Florida

INTRODUCTION

Peristomal hernia are reported in up to 50% of stoma patients, a may predispose to other complications such as obstruction or prolapse. Repairs with the Sugarbaker and keyhole techniques have shown a two to three-fold higher recurrence with keyhole repairs but has not accounted for use of the robotic platform which is increasing used for repair. We a single surgeon experience with robotic Sugarbaker parastomal hernia repairs (rPSHR).

METHODS

PSH repair cases between 2020-2023 were captured in a prospective hernia database and analyzed retrospectively. Data points included demographics, comorbidities, hernia repair history, operative information, and patient reported outcomes. Continuous variables were compared using Kruskal Wallis tests, while categorical variables are compared using chi-squared or Fisher exact tests.

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RESULTS

Thirty-two robotic Sugarbaker cases were analyzed, with a mean age and BMI of 61 years and 28.5kg/m2. 57% were female. 84% were ASA Class 3 or higher and functional status was independent in 96%. 38%, 19% and 19% had obesity, sleep apnea and T2D, respectively. Hernia classification included 16%, 28%, 47% and 9% type 1, type 2, type 3, and type 4 PSH, respectively. 93% received a paravertebral block. Fascial defect closure was 100% and coated-synthetic mesh was used. Mean procedure length was 3.9 hours, including a mean enterolysis time of 118 minutes (SD 57). One (3.1%) intraoperative conduit enterotomy occurred and was suture repaired. Length of stay was 3.3 days (SD 1.98), with mean pain at discharge and interval follow-up of 2.96 (SD 2.47) and 1.53 (SD 1.78), respectively. Readmission and reoperation rates were 12.5%% (n=4) and 3.1% (n=1). Deep SSI occurred 6.2% (n=2) and were managed with local colostomy revision (n=1) and mesh salvage (n=2). 6.2% experiences postoperative obstruction. Mean early follow up was 27.32 days with no hernia recurrence.

Table 1. Outcomes after robotic Sugarbaker for Peristomal hernias

	Mean	Standard deviation
Pain at Interval	1.52	1.78
Pain at Discharge	2.96	2.47
Hospital LOS in Hours	80.01	47.40
Hospital LOS	3.33	1.98
Follow-up Duration	27.32	15.81
	N	Percent
Re-admission	4	16%
Reoperation	1	4%
Reintervention	3	13%
Overall Complication	8	32%
Conversion	1	3%
Intraoperative complication	2	6%
Unrestricted Activity Level	21	91%
UTI	2	8%
Sepsis	1	4%
Deep SSI	1	4%
Oran Space SSI	1	4%
Intestinal obstruction	2	8%
Fascial dehiscence	1	4%

CONCLUSIONS

- Robotic Sugarbaker repair using coated-synthetic prosthesis is a safe and effective treatment option for parastomal hernias, without or with concomitant incisional hernia repair.
- Is associated with excellent short-term outcomes.