Closure of Ostomy and Synchronous TAPP (COAST):
Initial Results of a Prospective Cohort Study

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INTRODUCTION

The long-term risk of stoma site hernia remains between 30-50% after enterostomy reversal.

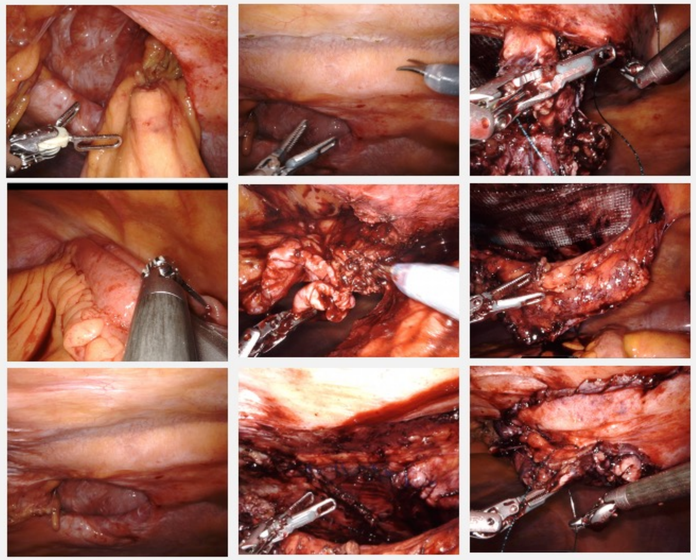
Prophylactic placement of synthetic mesh decreases the incidence of subsequent incisional hernia without an increased risk of infection.

At our institution, the closure of ostomy and synchronous TAPP (COAST) procedure was developed to incorporate a robotic assisted laparoscopic mesh placement at the time of stoma reversal.

The purpose of this study is to examine clinical outcomes for patients who underwent the COAST procedure.

METHODS

The COAST procedure (figure) was performed on a pilot of patients at an academic colorectal practice of patients who underwent stoma reversal between August of 2020 and January 2022. Patient demographics, operative details, and postoperative outcomes were all reviewed.



Steps:
1.Retraction and stapling of the diverting loop ileostomy
2. Side-to-side anastomosis
3. View of the defect
4. Start of the flap
5. Creating the trap door distal peritoneal flap
6. Primary defect closure
7. Mesh placement
8.Flap closure
9. Defect closure

Patient Demographics (Sex, age)	Time since operation (months)	Size of defect (cmxcm)	Complication
Male, 59	25.3	6x4	Takeback for ostomy bleeding
Male, 68	24.4	5x4	Takeback for anastomotic leak
Male, 63	23.4	5x5	None
Female, 66	17.9	5x5	None
Male, 39	17.5	6x6	None
Male, 57	16.6	6x6	None
Male, 54	15.4	5x5	None
Male, 43	15.0	6x6	None
Male, 78	11.7	5x4	None
Male, 45	19.0	8x8	None

Table 1: Patient demographics and outcomes



Appearance of mesh in the patient with a postoperative leak

RESULTS

Ten patients underwent the procedure mean age 55.9 years (range 39-78) and a majority were male (M=9, F=1). Mean follow up time since the procedure is 18.1 months (ranges 12-25). Two patients (20%) required reoperation: one patient had bleeding of the ostomy site while the other had an anastomotic leak. The patient who had an anastomotic leak underwent exploratory laparotomy and reanastomosis, but did not require mesh explantation. The mesh was seen 4 months later at robotic cholecystectomy (figure). There is no incidence of incisional hernia.

CONCLUSIONS

COAST is a safe procedure with no incisional hernias at follow up and a small risk of reoperation.

It is fiscally responsible and an effective alternative to a staged ostomy takedown with hernia repair later.