

Robot-Assisted Emergency Repair of Petersen’s Hernias After Gastric Bypass Using Ovine Biologic Reinforcement: A Case Series Demonstrating Zero Early Recurrence

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Introduction

Internal hernias remain a serious late complication following laparoscopic Roux-en-Y gastric bypass (LRYGB). Petersen’s hernias may occur in up to 6% of patients when mesenteric defects remain unclosed. Randomized evidence demonstrates that defect closure reduces internal hernia risk. However recurrence after suture repair alone is well recognized.

Objective

Evaluate feasibility and early outcomes of robot-assisted emergency Petersen’s hernia repair reinforced with ovine biologic tissue matrix.

Methods

Case series of 3 female patients presenting 2–4 years after LRYGB.
Mean age 50.7 years | Mean BMI 27.6 kg/m²
Robot-assisted reduction, defect closure with absorbable suture, biologic reinforcement.
Mean console time 72 minutes. All patients discharged POD1.

n	Age	BMI	Years Post-RYGB	Console Time	LOS	Complications	Recurrence
3	50.7	27.6	2-4 yrs	72 min	POD1	0	0

Table 1. Summary of patient characteristics and early outcomes

Results

No intraoperative complications.
No recurrence or mesh-related complications at 1 year.
All patients asymptomatic and discharged POD1.

Conclusion

Robot-assisted repair with biologic reinforcement appears safe and feasible and may enhance the durability of Petersen’s defect closure. This approach may be particularly useful in high-tension defects where primary suture repair alone may carry an increased risk of recurrence.

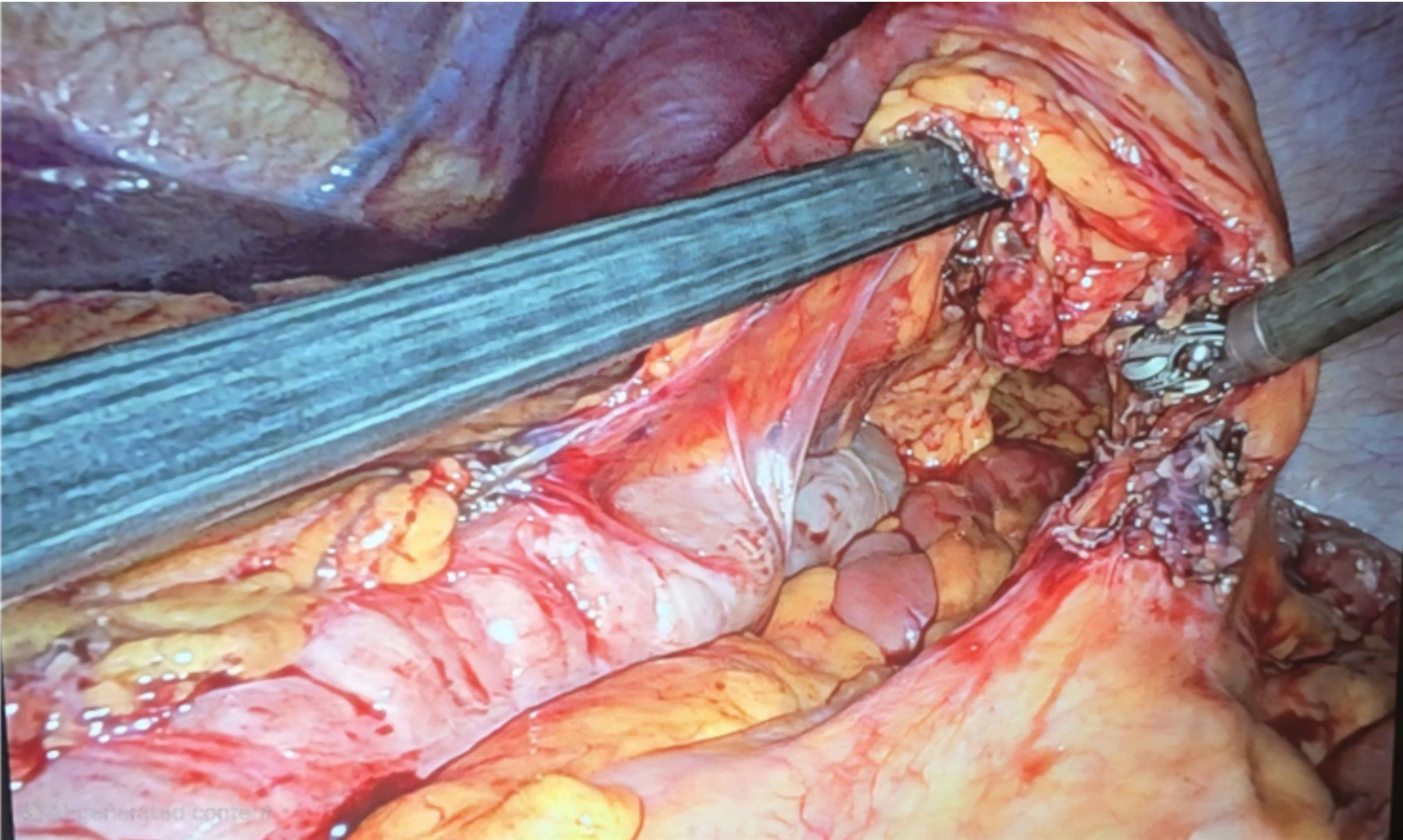


Figure 1: Intra-op image depicting the large Petersen's defect after reduction of internal hernia on one of our patients

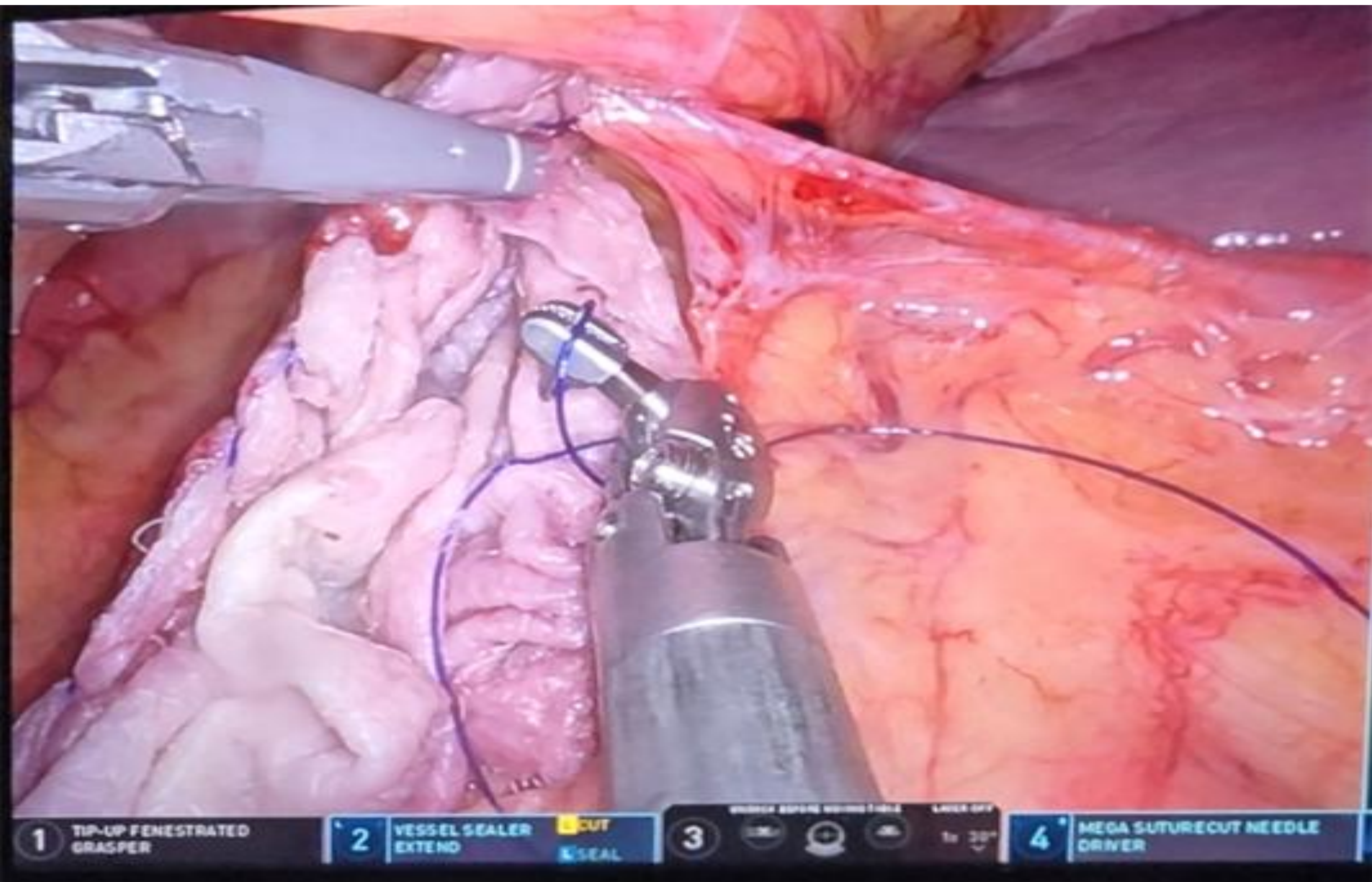


Figure 2: Intra-op image depicting closure in process of Petersen’s defect

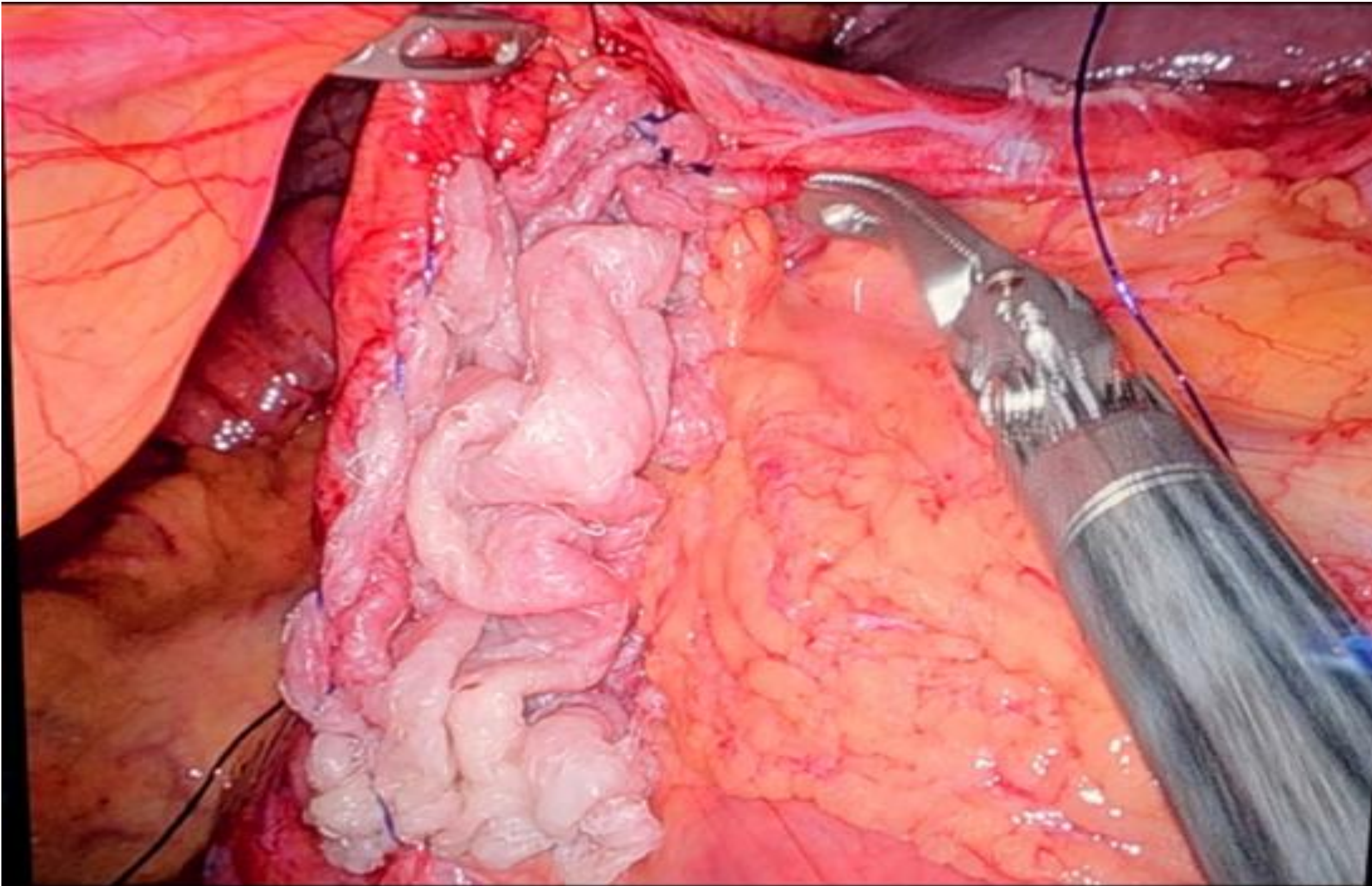


Figure 3: Intra-op image depicting completed closure of Petersen’s defect