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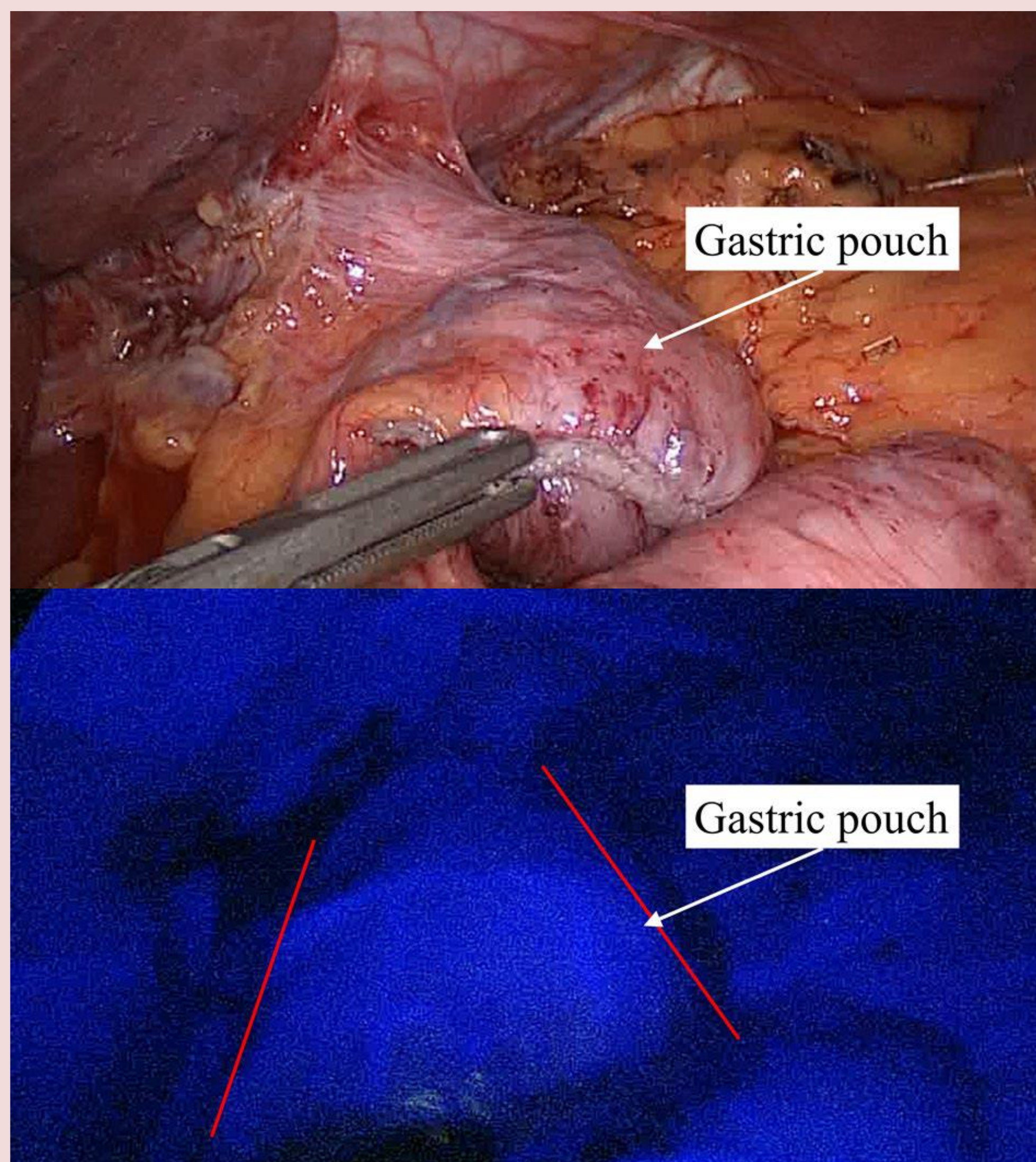
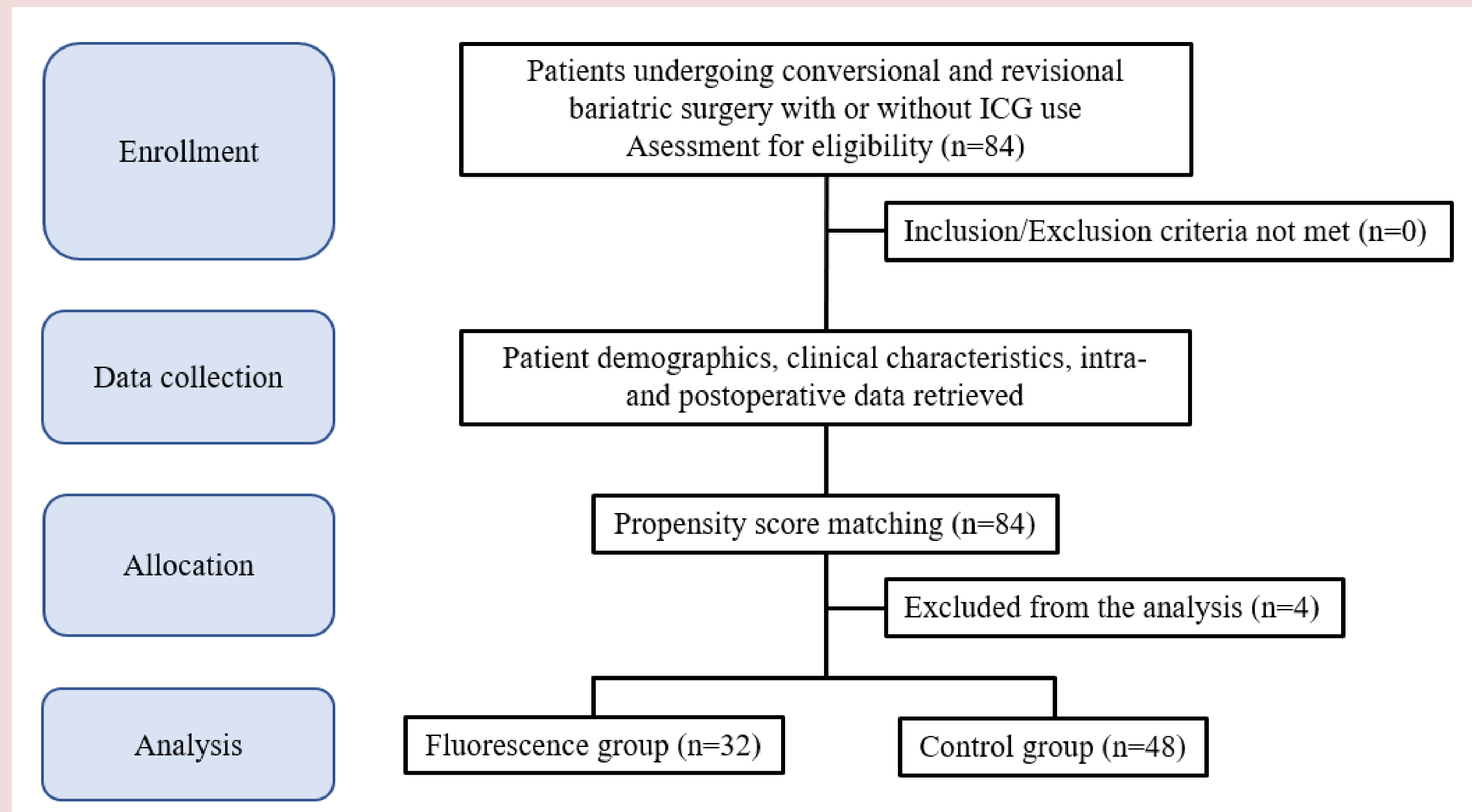
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Introduction

Indocyanine green (ICG) is a valuable tool to assess anastomosis blood supply and reduce the risk of leakage. Our study aimed to evaluate the usefulness of indocyanine green (ICG) angiography during either conversional or revisional bariatric surgery.

Methods

We prospectively enrolled all patients scheduled for reoperative bariatric surgery with gastric pouch resizing and we compared them with a retrospective series of similar patients. All prospective patients underwent surgery with an ICG assessment of the gastric pouch perfusion. The primary outcome was the rate of postoperative complications. Demographic, clinical characteristics, and intra- and postoperative results were collected and analyzed.



Variables	Fluorescence group N = 32	PSM control group N = 48	<i>p</i>
Need of surgical strategy change, n (%)	0	-	-
Intraoperative complications, n (%)	0	0	-
Operative time, min (SD)	125 (43)	133 (47)	0.454
Postoperative complications	1 CD grade 3 1 CD grade 4	1 CD grade 1 2 CD grade 3 1 CD grade 4	0.846
Length of hospital stay, days (IQR)	2.8 (1.0)	3.3 (2.2)	0.213

Results

We included 80 patients. Thirty-two were prospectively enrolled and forty-eight were matched with a propensity score. The mean age was 50.7±9.7 years, 67 (83.7%) patients were female, and the mean BMI was 36.8±5.3 kg/m². Patients' characteristics were similar both groups.

The ICG angiography was successfully conducted in all patients and no change of the surgical strategy was necessary. Postoperative complications were similar in both groups (6.2% vs. 8.3%, *p*=0.846), as well as operative time (125±43 vs. 133±47 min, *p*=0.454) and length of hospital stay (2.8±1.0 vs. 3.3±2.2 days, *p*=0.213).

Conclusions

Our study showed that ICG fluorescence angiography may not be useful for assessing the gastric pouch blood supply in patients undergoing reoperative bariatric surgery.

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