HANDSEWN SLEEVE FOLDING SUTURE IN PREVENTING STENOSIS OF COLOANAL ANASTOMOSIS

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1. Background: Sleeve folding suture is used in vascular anastomosis in order to reduce the risk of anastomosis stricture. It is also done at ostomy to prevent ostomy stenosis. So, I apply this technique to coloanal anastomosis with the same purpose.

2. Technique description: This suture is effectable and learnable. The first stitch goes through all layer of colon wall, from mucosa to serosa , about 0.5cm from cutting verge of colon. Next, the second one goes in and exits, just bites the serosa and muscular layer of colon wall (look like Lambert stitch), about 1.5cm from cutting verge of colon. After that, third stitch bites all layer of anal wall, from muscular to mucosa, about 1cm from the cutting verge of anal wall. Finally, thread is tied by square knot. After doing this suture, the colon wall is folded at anastomosis site.

3. Method: This study has been conducted through observation of 23 lower 1/3rd rectal cancer patients and 4 rectal polyposis patients who were operated from January 2017 to November 2018 at the Oncology Hospital of HCMC. The respective IRB was approved on December 01st, 2016. Operation consents were all signed before each treatment.

The tumor location was 2-7 cm from the anal verge. The distance between the anal verge and the inferior border of the tumor was determined by DRE and flexible proctoscopy with patients placed in the lithotomy position.

Pre-surgical tests performed include: physical examination, DRE, complete blood cell count, hepatic and renal function, ECG, CEA, CA19-9, chest X-ray, abdominal ultrasound, pelvic MRI, and colonoscopy.

All patients were undergone laparoscopic intersphinteric resection with handsewn coloanal anastomosis.

4. Result: Male/Female: 13/14; Average age: 53.2 (32 – 79); Rectal cancer: 23 cases (Stage 1: 4, Stage 2: 5, Stage 3: 12, Stage 4: 2). Rectal polyposis: 4 cases. Preoperative chemoradiation therapy: 18/23 cases. Average distance from lowest border of tumor to anus verge: 4.2cm (2 – 7cm). Adenocarcinoma Grade 2: 22 cases, Grade 1: 1 case. Average operation time: 118.8 minutes (80 – 170 minutes). Average blood loss: 96.9ml (10 – 200ml). Ileostomy: 4 cases. Post operation discharge at Day 7. Anus Stricture: 1 case – 3,7% (whole anus was stricture, not only at anastomosis site. It was treated by digital dilation).

5. Conclusion: Handsewn sleeve folding suture helps reduce the risk of coloanal anastomosis stricture.







