

## Comparison of different surgical techniques for closure of diverting loop ileostomy: A clinical trial

### Authors:

Amir KESHVARI<sup>1</sup>, Mohammad Reza KERAMATI<sup>1</sup>, Alireza KAZEMEINI<sup>1</sup>, Mohammad Sadegh FAZELI<sup>1</sup>, Seyyed Mostafa MESHKATI YAZD<sup>1</sup>

<sup>1</sup> Tehran University of Medical Sciences, Tehran, Iran

### Aim:

The aim of this study is to evaluate and compare outcomes of three different surgical techniques used for the closure of protective loop ileostomy after a curative rectal cancer resection.

### Method:

In this clinical trial a total of 93 patients with history of rectal cancer, low anterior resection and diverting loop ileostomy were included. The patients were randomly assigned into three groups for their ileostomy closure including (A) anterior repair of the ileal defect, (B) resection and hand-sewn anastomosis, (C) resection and stapled anastomosis.

### Results:

Mean age of patients were  $58.1 \pm 10.1$  (A),  $52.4 \pm 12.0$  (B), and  $57.6 \pm 11.7$  (C) years. Intraoperative complications including bleeding or small bowel damage were similar between all groups ( $P > 0.05$ ). Evaluating postoperative period, Group A developed a faster first gas and stool passage compared to the other two groups ( $P < 0.05$ ). Regular PO diet was also tolerated in the Group A significantly faster (A=2.0, B=3.0, C=3 days,  $P < 0.05$ ). Group A also revealed a shorter hospital stay (A=4.3, B=6.0, C=6.1 days,  $P < 0.05$ ). However, the group A had a meaningful longer operating time ( $P < 0.05$ ).

### Conclusion:

The anterior repair technique for the closure of loop ileostomy is a safe technique with better postoperative bowel function and PO tolerance, and less hospital stay.