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The Role of Histological Assessment of Distal Doughnut in Low Anterior Resection for Low Rectal Cancer

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Anterior resection (AR), especially low anterior resection (LAR), for low rectal cancer and colorectal anastomosis is a technical challenge to surgeons. But by using circular stapling devices now it is possible to make more LARs technically feasible. A stapled end-to-end colorectal anastomosis is increasingly adopted following a low anterior resection for low rectal cancer. This descriptive cross-sectional study was carried out in the department of Surgery, Bangabandhu Sheikh Mujib Medical University, Dhaka, Bangladesh from December 2015 to December 2016. The ensuing doughnuts created from the stapling device are routinely sent for histological analysis. However, its efficacy remains debatable. This study aims to determine the role of sending distal doughnut for histological examination following a stapled end-to-end colorectal anastomosis done in low anterior resection for low rectal cancers.

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Key words: Doughnut, Low rectal cancer, Low anterior resection, Ultralow anterior resection (ULAR)

Introduction

In the last 2 decades, there are much more improvements seen in rectal cancer surgery by using more advanced surgical techniques. Abdominoperineal resection, which was the previous gold standard treatment of rectal cancer surgery; now it is considered unnecessary in most patients with low rectal cancer and most of these patients can now be treated with sphincter saving surgery¹. Anterior resection (AR), especially low anterior resection (LAR), for rectal carcinoma and colorectal anastomosis is a technical challenge to surgeons. The introduction of circular stapling devices has made more and more LARs technically feasible².

Tumor cell deposits within the mesorectal lymph nodes have been identified up to 5cm distal to the inferior aspect of the tumor, emphasizing the need to mesorectal transection 5cm distal to the inferior border of the tumor for more proximal rectal cancers. However, for patients with low lying tumors treated with total mesorectal excision, the clinical evidence is less clear regarding what constitutes an adequate distal margin³.

Subclinical distal bowel intramural spread is present within 1cm distally from visible palpable tumor in a substantial proportion of patients. For these reasons, for patients with low-lying cancer who are undergoing anterior resection (AR), >1cm of distal bowel clearance is recommended as minimally acceptable³.

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