

Editorial

Surgical Management of Rectal Cancer – No Room for Error

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The number of colorectal cancer cases in Malaysia as reported in the National Cancer Registry confirms its position as a major health concern.^[1] It is now the commonest male cancer and the third commonest female cancer, a significant proportion of which is accounted for by rectal cancers. The only curative treatment for rectal cancer at present is surgical excision. The major surgical objectives in managing a patient with rectal cancer include local control with long-term survival, preservation of anal sphincter, bladder and sexual function and maintaining quality of life. The majority of these objectives are met by one variable over which we have control, which is painstaking and meticulous surgical dissection performed by an experienced surgeon.

Important factors that should be given due consideration when performing surgery for rectal cancer include total mesorectal excision (TME); autonomic nerve preservation; circumferential resection margin (CRM); distal resection margin; sphincter preservation; laparoscopic approaches and post-operative quality of life. In patients with metastatic disease, complex and inter-related variables such as patient co-morbidities, patient expectations, and resectability of metastases must be considered when planning surgical therapy. For patients with unresectable distant metastatic disease, surgical excision of the primary rectal cancer remains an option when palliation of symptoms is anticipated.

Total mesorectal excision is a technique, which when performed properly, yields an intact mesorectum containing the draining lymph nodes of the rectum whilst facilitating pelvic autonomic nerve preservation. The aim is to obtain a negative CRM and distal margins while preserving the autonomic nerves to reduce post-operative genitor-urinary and sexual dysfunction. TME should be considered an integral aspect of the surgical management of a patient with rectal cancer and sufficient surgical skills and experience are required of the surgeon if optimal results are to be obtained.

The importance of the CRM in minimising local recurrence of rectal cancer was emphasised by Quirke almost 20 years ago.^[2] Obtaining a negative CRM is likely to result in decreased rates of local recurrence, distant metastases, and death. In order to provide an optimal oncologic outcome, the surgeon must make all efforts to obtain a negative CRM, including *en bloc* resection of contiguous structures. While distal margins as much as 1 cm provide acceptable oncologic results, the surgeon should strive for a 2 cm distal resection margin. Sphincter preservation is usually possible for rectal cancer located greater than 3 cm above the anal verge but gender and anatomical factors play an important role. Slender patients with a wide pelvis are more appropriate for sphincter preserving resection of distal rectal cancer than obese male patients with a narrow pelvis. Patients with impaired anorectal function may be better treated with radical resection and permanent colostomy, thus avoiding substantial post-operative perineal morbidity. Hence, it is imperative that the surgeon exercises sound clinical judgment when selecting patients for restorative rectal resection.

Several studies have reported advantages of laparoscopic rectal cancer resection over open surgery such as a reduction in pain, more rapid recovery of bowel function, shorter hospital stay and better cosmetic results. We have embarked upon this procedure successfully over the last two years with low morbidity and no mortality and remain optimistic that our experience will encourage other units in this country to follow suit in performing this minimally invasive procedure.^[3] We have also found a decreased wound infection rate and post-operative adhesion formation with this approach apart from earlier commencement of adjuvant treatment for patients with advanced disease. Data from a recent systematic review confirms that laparoscopic-assisted TME is feasible when performed by experienced surgeons.^[4] Oncologic outcome does not appear to be impaired by laparoscopic rectal cancer resection and in addition, short-term morbidity was reduced in the laparoscopic group. Further prospective randomised trials focusing on laparoscopic resection of rectal cancer will serve to help definitive recommendations to be made concerning the efficacy of this procedure as specific skills are necessary when embarking upon this approach.

It is worrying to note that at the present, colorectal surgery is not recognised as a subspecialty entity in this country. This takes into consideration the management issues at hand, which require the specific goals mentioned above to be managed through a multi-modality approach and delivered by a multi-disciplinary team where the surgeon plays a crucial role. Analyses of prospectively maintained cancer databases have shown some evidence that endpoints are better in specialist hands.

Anastomotic leakage rates are also surgeon dependent and a large range of local recurrence rates reported in the literature supports a surgeon-related factor. The performance of a precise dissection and decision-making process requires experience and technical expertise, which if lacking, leads to detrimental results at the expense of the patient. Furthermore, additional skills and dexterity are required when performing laparoscopic colorectal surgery, which will probably supersede open surgery in the near future.

The ultimate future goal in surgery for rectal cancer is to be able to individualise a patient's treatment based upon a number of factors that include tumour location, expression of molecular markers and finally response to and optimisation of neoadjuvant therapy. Results of rectal cancer surgery should be audited and surgeons must improve their skills and acknowledge their limitations if substandard surgical and oncological results are seen. The price to pay for the local failure of disease control in rectal cancer surgery is too high and ultimately timely referral to an experienced surgeon, practicing principles of TME with a low local recurrence rate, will lead to a better outcome.

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