EDITORIAL

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Comparison of Quality of Life in Patients Undergoing Abdominoperineal Extirpation or Anterior Resection for Rectal Cancer

The management of rectal cancer has changed considerably since the introduction of the abdominoperineal resection by Sir Earnest Miles at the start of the last century. It was Miles' contention that a radical resection was required, removing both distal and proximal lymph node-bearing tissue. Thus, abdominoperineal resection was performed for most rectal cancers.

In recent years, however, the need for a 5 cm distal margin has been challenged and now a distal margin of 1-2 cm is considered sufficient in most instances. This change in philosophy, plus the introduction of circular stapling devices that have facilitated the performance of low anastomoses, has meant that a low anterior resection can be performed for most rectal cancers, even those occurring in the distal one third of the rectum. In addition to the changes in the technical aspects of the procedure, improvements in the perioperative care of patients has meant that operative morbidity has been reduced and the procedure can be performed safely with mortality rates in the 1-5% range.

As a result of this, there has been a change in assessing outcome following surgery for rectal cancer. While overall survival (both immediate and long term) remains the primary concern, both patients and surgeons are interested in the long term functional results and quality of life. Thus, the article by Grumann et al in this issue of *Annals of Surgery* is timely and important.[1]

Avoiding a permanent colostomy by performing sphincter-saving surgery is the usual goal in managing rectal cancer. Indeed, the proportion of patients having sphincter-saving versus abdominoperineal resections is often the surrogate measure used in outcomes studies to assess surgical performance. However, it is known that functional results following ultralow anterior resection with a coloanal anastomosis may be suboptimal in up to a third of patients. Furthermore, recent evidence suggests that functional results may be further compromised with the addition of radiation therapy. Thus, it is often unclear when dealing with a frail, elderly patient who has a somewhat compromised anal sphincter tone, whether he or she would be best served by an abdominoperineal resection or a low anterior resection. While the patient and/or his caregivers might have difficulty managing a colostomy, frequent bowel movements, urgency, and in some cases incontinence may be even more difficult to handle.

The present study indicates that overall quality of life seems to be better in patients that have abdominoperineal resection rather than anterior resection for rectal cancer. Although the differences were only statistically significant for diarrhea, constipation, and sleeping problems, there were distinct trends in the other symptom and function scales in favor of abdominoperineal resection. Thus, while it may be wrong to conclude that patients had improved quality of life following abdominoperineal resection, it appears that at the least it is as good as that with an anterior resection. The authors used the EORTC instruments rather than the more familiar SF-36 to measure quality of life. This is probably appropriate since the EORTC QLQ 30 has been used extensively in cancer patients and the CR 38 module has been validated in rectal cancer patients. It is a disease-specific instrument and thus more likely to detect differences. However, the CR 38 module has been criticized for having a preponderance of items related to the side effects of radiation and chemotherapy and fewer on anorectal function.[2]

In this study, however, it is interesting that the significant differences were in regard to bowel function. The study population seems representative of patients having surgery for rectal cancer. Indeed, the mean age of patients was approximately 60 years and 70% of patients in the anterior resection group had an anastomosis above 5 cm. This is a group where functional results and outcome would be expected to be good. Patients were assessed preoperatively and then at 6-9 months and again at 12-15 months. Therefore, follow-up was relatively short, although one would expect by 12 months functional results and thus quality of life would have reached a plateau.

While these results are contradictory to what we might expect, the authors themselves have shown that the instrument probably does have discriminatory validity. They were able to show that symptoms and function improved over time and that patients with a high anterior resection had

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better outcome than those with a low anterior resection. Our group compared quality of life in patients having reconstructive surgery for ulcerative colitis (ileal pouch anal anastomosis) with those having a Kock pouch or conventional ileostomy using utility measurements.[3] Like these investigators, our a priori hypothesis was that patients with an ileal pouch would have improved quality of life. To our surprise, there was no significant difference amongst the three groups. In all three groups, the mean utility was over 0.90, indicating a very high quality of life. We explained our results by suggesting that patients were not randomly allocated, and in some instances the patient chose which procedure they wanted. Patients adapt both physically and psychologically to their postoperative status and perhaps physical well-being, which is generally improved considerably in patients following surgery for ulcerative colitis, is the main determinant of outcome. These same factors may help to explain the results of the present study. It does point out, however, that while patients are often reluctant to accept a stoma preoperatively, most patients attain a high quality of life afterwards. The authors suggest that the results may in part be explained by the two groups having different preoperative expectations, which may affect ultimate outcome. This may be true, and points out the necessity of preoperative education of patients having either operation.

In conclusion, this is an interesting and important study reported by Dr. Grumman and colleagues. It points out the importance of measuring clinically relevant outcomes from the patient's perspective and that surgeons' views may not be representative of patients'. However, there is more to be done. This is a relatively small sample and further studies (using other instruments and in larger samples of patients to evaluate outcome in subgroups of patients) would be of interest. Furthermore, it would be interesting to know if there were cultural differences in the North American population.

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References

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