for AR. It provides maximum exposure for wide resection of the tumor, a measured distal margin, and an accurate anastomosis. The procedure may be carried consistently to the pelvic floor without disrupting the anal sphincters and their innervation. Sphincter function is consistently preserved. Mortality rate is no higher than other radical rectal resections. Morbidity can be minimized by the selective use of protective colostomy. Finally, ASR provides the exposure for maximum clearance around the tumor, and long-term follow-up has revealed no greater risk of local recurrence or death from cancer as compared to APR.

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DISCUSSION

DR. CLAUDE E. WELCH (Boston, Massachusetts): There are three important contributions Dr. Localio has made to this operation. First, his figures speak for themselves. He has succeeded in retaining sphincters and obtaining a 5-year survival rate commensurate with the combined abdominoperineal resection of Miles. In addition, he has contributed a new way of exposure of these tumors that, for the initiated, furnish no problems; and finally, he has used a decompressive colostomy in only about one out of seven cases, a surprisingly low figure.

Our own experience at the Massachusetts General Hospital, which was reported by Dr. Donaldson and associates a few years ago, showed a much more modest experience with the operation, and as the years have gone by, perhaps, a somewhat decreased interest in it, due to the emergence of the EEA stapler. And as a consequence of our own observations, and the fact that a discussant is supposed to pose some questions that probably can't be answered, I would like to ask the authors about three particular items.

No. 1, what about the local recurrence rate? According to the figures, pelvic recurrence happens in 15% of their cases. It has been our thought that much of this recurrence rate was due to implantation at the line of anastomosis, but it can occur extramurally as well. I would like to know how many of these recurrences were anastomotic, and whether any of the patients could be saved by a secondary Miles operation.

No. 2, concerning the frequency of colostomy, we have been accustomed to using a decompressive colostomy in every case. Their experience is quite different. They do report that there were controlled fistulas in about 10% of the cases with their operation. What does "controlled fistula" mean? Are they controlled by a diaper, or by something else?

This may not be a very important point, but it seems to me that it will attain some more significance in the future, because so many of the Class C patients now will be treated with early postoperative radiation. And if a fistula is present, one would be rather reticent about hurrying with the radiation therapy.

As a matter of fact, their figures showed that about 30% of their cases with the abdominosacral resection were Class C Dukes, and therefore probably would profit from postoperative radiation therapy. And, finally, inasmuch as the stapler is assuming a great deal more

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importance, I would like the authors to comment. They will not have any figures on this, but do they have any arguments to prove that their procedure here will be superior to the use of the stapler?

DR. KENNETH ENG (Closing discussion): Dr. Welch's first question concerned local recurrence rate. It is very difficult to know when you do have a local recurrence whether this was suture-line implantation or ingrowth from the surrounding pelvis. We take some comfort from the fact that there was no difference in the recurrence rate among the three operations. Even after APR, where there is no anastomosis at all, we had a similar recurrence rate.

I suspect that most of these were recurrences that occurred by ingrowth from the pelvis. In fact, only two of these were resectable for cure secondarily. I think with the use of a synchronous approach we probably resect some recurrent tumors that probably were considered unresectable in the past by abdominoperineal resection.

As far as what we mean by a controlled fistula, we mean a patient who does not go into septic shock and develop peritoneal signs and require an emergency operation for peritonitis. As a matter of fact, one or two of these patients came back to the office and noted that they had some fecal soilage, and on examination were found to have a fistula.

The vast majority of these patients had not had a protective colostomy. Most underwent colostomy to aid in healing of the fistula. We had one patient who healed a fistula spontaneously without a colostomy, but they all healed.

We do not use the stapler. After all, the stapler is only one means of putting two pieces of intestine together. When we try to save the sphincter, we must keep in mind that we must remove the cancer adequately. As you all know, in the male with the midrectal lesion this decision is not always easy, especially since very often the dissection is blind. Abdomino-sacral resection provides the posterior exposure to insure the adequacy of the resection. You can get wide margins. You actually divide the lower parts of the lateral ligaments from the posterior approach, and you have a measured distal margin. After you have done that, how you join the intestine is your choice. I personally prefer the control of the sequential sutures, so that if things go wrong I can adjust it, rather than to have one snap of the stapler.