## **Colostomies May Influence Patient Quality of Life More Than Poor Sphincter Function**

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To the Editor:Minsky,1 in his recent Editorial, suggested that "A well-functioning colostomy may offer a better quality of life than a poorly functioning sphincter". After this statement, he referred to Grumann et al's study2 that concluded "Patients undergoing low AR [anterior resection] have a lower QoL [quality of life] than those undergoing APE [abdominoperineal extirpation]." First, Minsky writes that Grumann compared 23 abdominoperineal resection (APR) patients with 50 low anterior resection (AR) patients. The comparison Grumann conducted, however, was between 23 APR patients and 50 AR patients, consisting of 15 low AR patients and 35 high AR patients grouped together as AR patients. Grumann et al also described an analysis between low and high AR patients. At no stage, however, was a statistical comparison between low AR and APR patients reported, despite conclusions to this effect. Further, an editorial following the article suggested "...it may be wrong to conclude that patients had improved quality of life following abdominoperineal resection..."

Second, our results from the Munich Cancer Registry 4-year prospective field study strongly contrast Grumann and Minsky's conclusions. Fifty-four APR patients, 69 low AR patients and 176 high AR patients completed the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-30 and CR38, the same questionnaire used by Grumann et al. In our study, those with a high AR had less frequent or painful bowel movements than those with low AR. Low AR patients alone reported significantly more diarrhea and constipation than APR patients. This, however, did not lead to low AR patients, overall, having a worse quality of life than APR patients. Moreover, our work indicates that in the long-term, APR patients had a worse quality of life. After 4 years, there were many significant differences between APR and low and high AR patients. Additionally, low and high AR patients' quality of life scores improved over time, whereas APE patients', unfortunately, did not.

Third, our analyses for those with and without a stoma also indicated that, despite suffering more bowel and bladder problems, nonstoma patients had significantly better quality of life. In particular, when patients' stomas were reversed, quality of life greatly improved. For example, role functioning increased by over 20 points even though at the same time diarrhea increased also by almost 20 points. A previous randomized trial also observed that clinical differences in bowel function were not reflected in improved quality-of-life scores.

Differences between our study and Grumann et al's work should be noted. Low AR in our study was a tumor location under 8 cm, low AR in Grumann et al's work was anastomosis below 5 cm. Grumann et al also had a smaller patient

sample and a "precisely defined patient group". None of the AR patients in their study appeared to have stomas, for example. This is in contrast to our patients, from a population sample, where 30% of low AR and 15% high AR patients had a stoma after operation. Other sample differences were also evident. The average age for APE patients was 61.4, and 62.2 years for AR patients. APE and AR patients in our quality-of-life sample were older (66.4 and 64.0 years, respectively). Further, Grumann et al reported results up to 15 months after surgery, our results extended to 4 years after diagnosis. In our opinion, colostomies are more likely to be associated with worse quality of life than poor bowel function.