Quality of Life in Patients Undergoing Colorectal Surgery

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Introduction

The issues that most concern patients requiring colorectal surgery are as follows:
1. The fear of cancer.
2. The fear of having a permanent intestinal stoma.
3. The fear of bowel incontinence.

The problem in evaluating quality of life issues in colorectal surgery are largely based on the methodology used for assessing quality of life. Most assessments of quality of life are based on questionnaires. Sometimes these questionnaires are difficult to interpret and difficult to understand. Face-to-face interviews often provide more in depth information but the results of interviews are difficult to quantify. In essence, quality of life assessment attempts to numerically assess abstract issues.

Spectrum of Inflammatory Bowel Disease

The spectrum of inflammatory bowel disease results in major differences with respect to quality of life among patients with ulcerative colitis compared to those with Crohn’s disease. In ulcerative colitis, only the colon and rectum is involved, the sphincters are spared and there is no small-bowel involvement. Although many of these patients present with acute fulminating colitis requiring an emergency colectomy, a high proportion of these patients can today be reassured that the stoma might be temporary and that there is an 80–95% chance of full continence, albeit with some diarrhoea after colorectal excision and pouch construction. There is of course a risk of malignancy and there is the risk that conventional surgery may be associated with complications resulting in a permanent stoma.

At the other end of the spectrum is Crohn’s disease, which may affect any part of the gastrointestinal tract. The anal sphincters are commonly affected. There is a high risk of incontinence and repeated operations for recurrence. There is particularly a high risk of unavoidable complications: abscess, obstruction and fistula. Surgical treatment rarely cures Crohn’s disease and there is constant worry about relapse requiring medication with potential serious side effects.

Between these two extremes is indeterminate colitis. Most cases of indeterminate colitis present as acute colitis and eventually turn out to behave more like ulcerative colitis than Crohn’s disease. However, some cases of indeterminate colitis will, over time, develop the manifestations of Crohn’s disease associated with all the co-morbidity of Crohn’s disease and its negative impact on the quality of life.

Issues that Impact on Quality of Life in Inflammatory Bowel Disease

1. Body image is a major issue which influences quality of life in patients with inflammatory bowel disease. There is the fear of unsightly scars, impaired continence, stomas and psychosexual issues which result in isolation and have a major impact on social well being.
2. There is the fear of operations and the complications thereof, particularly of recurrence and of malignant disease which influences the patient’s well being.
3. There is the issue of general health, particularly anaemia, malnutrition and lack of energy, which has a profound influence on quality of life.
4. Bowel function has a profound impact on quality of life, especially pertaining to uncontrollable incontinence.
5. Quite apart from the above issues, there are the psychosexual issues related to inflammatory disease as well as mental health, pain and the complications of medication.
6. The severity of bowel incontinence is closely associated with the gastrointestinal quality of life index score.
Ulcerative Colitis: Pouch Surgery

Measurement of quality of life, especially in pouch patients is fraught by methodological problems [1]. Quality of life varies on a daily basis and depends on mood, expectations and anal function. The instruments of measurements are usually based on questionnaires which attempt to quantify abstract issues [2].

Even though pouch surgery is generally successful, there is always a fear of incontinence, which would require a permanent stoma. High bowel frequency, which is not uncommon following pouch surgery, is less demoralizing than urgency. The most debilitating symptom, however, is passive incontinence [3].

Quality of life is said to be normal in well-motivated individuals who are treated by proctocolectomy and permanent ileostomy; although it is accepted that patients make considerable adjustments to their life [4]. Consequently pouch surgery has to ensure that imperfections of continence, bowel frequency and sexual dysfunction do not compromise the generally better image and social ease of patients who no longer require a permanent stoma [5, 6]. Pouch surgery for dysplasia or malignancy often is performed in a rather older population with quiescent colitis and the functional results may not be as good as pouch surgery for patients with chronic relapsing colitis where medical treatment has failed. Nevertheless, even minor imperfections of incontinence do not appear to have a major impact on quality of life after pouch surgery [6–9].

Data from three large North American series has indicated that all of those patients who held a job prior to the pouch operation returned to their original place of employment afterwards [10]. However, it has been reported [11] that 13% had to change their employment, a finding almost mirrored in a study from Vancouver [12]. Another study reported that 75% of those in military service were able to return to the armed services after pouch surgery [13]. Normal sporting activities could be pursued by all patients after pouch surgery. Furthermore, children and adolescents were able to complete their education without any detriment to their academic achievement [14].

Pezim and Nicholls [15] conducted a questionnaire survey among patients with a pouch to assess their preferences compared to their life when they had a protecting ileostomy. This is not an entirely fair comparison as loop stomas are usually more troublesome than an end ileostomy. Furthermore, patients were self selected, having undergone a major operation to avoid a stoma. Nevertheless, 87% said that they were more confident, 89% felt that they were cleaner and 87% said that their sex image was better than it had been with a stoma. Similarly, 87% said that they were more at ease socially and 87% that they were more able to pursue normal sporting interests. In our own series, the functional outcome and quality of life was as follows: 73% said that they had unquestionably improved, 89% stated that having a pouch operation was definitely worth the effort, none regretted the pouch but 16% were uncertain whether this was the best operation for them. Despite this, 73% would definitely recommend the operation to a friend. When this cohort of patients was interviewed by an independent assessor, 38% stated that they were concerned about going out, 32% said that they were often worried about taking holidays, 26% had minor concerns about normal sexual activity and 7% had severe sexual morbidity.

The impact of having a permanent intestinal stoma must be acknowledged. Quite apart from the cost of the ileostomy appliance and the surgical complications that often occur, the impact of a stoma on social well being, sexual fulfilment and religious acceptability is often not fully recognised [16]. A study of attitudes amongst Asian migrants and the endogenous public in the United Kingdom has highlighted the anxieties expressed in both groups in relation to having an abdominal stoma [17]. This morbidity is largely eliminated by a modern pouch-anal reconstruction, provided that patients are appropriately counselled and properly selected. Naturally, quality of life is seriously impaired if there are major complications following pouch surgery. Any assessment of the impact of pouch surgery on quality of life must include a thorough pre-operative assessment as well as a thorough pre-operative counselling process [18].

Sagar et al. [19] compared the quality of life of patients in Leeds treated by restorative proctocolectomy with a matched group of quiescent colitics in remission. Bowel frequency was lower in those with quiescent colitis, but even in the absence of severe active disease, urgency was a serious problem in 72% of those with colitis, compared with only 12% after pouch construction. There was more anxiety and depression in the colitics compared with the pouch patients, but there was no difference between the groups in terms of leakage, use of pads, perianal irritation or time spent in the lavatory.

Perhaps some of the most interesting data on quality of life in pouch patients emanate from longitudinal studies [20]. Berndtsson and Oresland [21] from Göteborg, used a modified Olbrisch adjustment scale and found that the initial subtotal colectomy and ileostomy provided little improvement for patients within the group when medically treated for colitis. Only after pouch construction was there a sig-