Social and Sexual Function Following Ileal Pouch-Anal Anastomosis

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PURPOSE: Patiens who undergo surgery for ulcerative colitis are usually young and active. When surgery becomes necessary, their future social and sexual function is of major concern. This study was performed to be able to give more detailed information of what is to be expected. METHODS: Forty-nine consecutive patients (26 men and 23 women) who underwent ileal J-pouch-anal anastomosis for ulcerative colitis between November 1983 and September 1986 in the authors' institution were personally interviewed regarding details of their preoperative and postoperative social and sexual functions. RESULTS: Eighty-eight percent had reduced capacity to work preoperatively compared with 6 percent postoperatively. Thirty-one percent resumed work in the period with diverting ileostomy. Leisure time activities were reduced in 47 percent preoperatively, whereas 6 percent had limitations postoperatively. In 35 percent of women, frequency of intercourse was increased postoperatively, and none reported a decreased frequency. None of the women who were able to achieve orgasm preoperatively reported a postoperative disturbance of this ability, and 16 percent experienced an increased quality of orgasm. Postoperatively none reported dyspareunia, vaginal discharge, or changes in their menstrual cycle. Frequency of intercourse and ability to achieve orgasm remained unchanged for the majority of men; however, one developed erectile dysfunction, and one complained of retrograde ejaculation. Sexual activity in men was less affected by the presence of an ileostomy, and 69 percent had intercourse in the period with ileostomy compared with 30 percent of women. None of the patients complained of anal pain, soiling, or fecal leakage during intercourse, but one woman reported some discomfort from the pouch during intercourse. None of the patients wanted to return to a life with an ileostomy. CONCLUSION: The social and sexual function, quality of life, after ileal J-pouch anastomosis is improved when compared with the period with ulcerative colitis and the time with diverting ileostomy. In men, however, a frequency of sexual dysfunction similar to what is seen after proctectomy for benign diseases should be underlined. [Key words: Ileal pouch-anal anastomosis; J-pouch; Social function; Sexual function; Ulcerative colitis; Quality of life]

Damgaard B, Wettergren A, Kirkegaard P. Social and sexual function following ileal pouch-anal anastomosis. Dis Colon Rectum 1995;38:286–289.

Ileal pouch-anal anastomosis is a well-established treatment in specialized centers and has replaced proctocolectomy and ileostomy as the procedure of choice for most patients with ulcerative colitis requiring surgery. A major goal of the operation is to improve the patient's quality of life by avoiding the need for a permanent ileostomy. Postoperative morbidity and functional outcome after the pelvic pouch procedure have been thoroughly evaluated in several studies;[1–7] however, remarkably little attention has been paid to quality of life following the operation and has only been analyzed in detail in few studies.[8, 9] The aim of the present study was to assess quality of life, with special emphasis on social and sexual function, in patients with a pelvic pouch.

MATERIALS AND METHODS

Forty-nine consecutive patients (23 women and 26 men) who underwent mucosal proctectomy and ileal J-pouch-anal anastomosis for ulcerative colitis in the period from November 1983 to September 1986 participated in the study. Only patients who have had a functioning pouch for more than one year were included in the study. Median ages for women and men were 30 (range, 18–57) years and 33 (range, 19–56) years, respectively. Median follow-up time was 42 (range, 19–57) months. Nine women and nine men underwent colectomy before the pouch operation (three-stage procedure). These patients all had more than two years experience with an ileostomy.

The technique of the ileal J-pouch-anal anastomosis has been described in detail elsewhere.[4, 5] In brief, after abdominal colectomy, the rectum was transected at the level of the levator ani, the mucosal proctectomy was completed transanally, and a J-shaped pouch was constructed from the terminal 30 to 40 cm of ileum. The pouch-anal anastomosis was then performed at the dentate line. In all patients a diverting ileostomy was made to protect the anastomosis. The ileostomy was closed 12 weeks later.

All interviews were conducted personally by a physician (B.D.). The patient could at any time refuse to answer, and patient anonymity was assured. All patients agreed to the interview, and all questions were answered.

Detailed information was obtained from patients regarding occupational function (capacity to work),

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leisure-time activities, occupation, and marital status. Sexual function was surveyed by specific questions concerning changes in frequency of intercourse, ability to achieve orgasm, quality of orgasm, menstrual cycle, masturbation, inconveniences at intercourse, soiling, sexual limitations, impotence, ejaculation, and dyspareunia. All questions were directed toward the period with ulcerative colitis (preoperative period), the period with diverting ileostomy, and the time with a J-pouch.

RESULTS

Capacity to Work

Capacity to work increased through the period with ulcerative colitis, the period with diverting ileostomy, and the period with J-pouch (Table 1). At the time of the interview, 33 patients (67 percent) were fully employed. Six patients (12 percent) were employed half-time according to their own wishes. Five patients (10 percent) were unemployed, and five patients were students. The two pouch patients with reduced capacity to work both stated stool frequency as the cause. Three patients in the period with ulcerative colitis and two pouch patients, respectively, changed their job as a result of disorders.

Leisure Time

Preoperatively, approximately one-half of the patients had limitations in their leisure-time activities (Table 2). Limitations were usually in sports and games. In the time with diverting ileostomy, this was even more pronounced. Only three pouch patients had leisure-time limitations, and these were negligible. Predominantly, it was an issue of lavatory possibilities.

Marital Status

Forty-one patients (84 percent) were married or lived in a similar relationship, and eight patients (16 percent) were single. For those who were married, marriage took place preoperatively. None in the married group had been divorced. Two patients in the group who lived in a relationship similar to marriage had changed their relationship, but both patients declared that it had nothing to do with the situation as a patient with a pouch.

Table 1.
Capacity to Work

	Normal Capacity No. of Patients (%)	Reduced Capacity No. of Patients (%)
Preoperatively	6 (12)	43 (88)
Diverting ileostomy	15 (31)	34 (69)
Pouch	47 (96)	2 (4)

Table 2.
Limitations in Leisure Time

	Limitations No. of Patients (%)	No Limitations No. of Patients (%)
Preoperatively	23 (47)	26 (53)
Diverting ileostomy	43 (88)	6 (12)
Pouch	3 (6)	46 (94)

Sexual Function

Intercourse. Approximately one-third of the women noted an increased frequency of intercourse after the pouch operation, compared with the preoperative period (Table 3). The general reason for this was improved health, which increased libido. Frequency of intercourse remained unchanged for the majority of men, but two men stated a decreased frequency of intercourse after the pouch procedure (Table 3). Both men were older than 50 years, one developed impotence, postoperatively, and the other developed retrograde ejaculation. In the period with diverting ileostomy, only 30 percent of the women had intercourse, compared with 69 percent of the men.

Orgasm. Unchanged from the preoperative period, most women (83 percent) were able to achieve orgasm after the pouch operation (Table 4). Four women (17 percent) had never achieved orgasm.

Table 3.
Frequency of Intercourse

	No. of Men (%)	No. of Women (%)
Postoperatively compared with preoperatively		
Increased	1 (4)	8 (35)
Unchanged	23 (88)	15 (65)
Decreased	2 (8)	0 (0)
Intercourse in ileostomy period		
Yes	18 (69)	7 (30)
No	8 (31)	16 (70)

Table 4.
Orgasm

	No. of Men (%)	No. of Women (%)
Ability to achieve orgasm		
Always	25 (96)	11 (48)
Occasionally	0 (0)	8 (35)
Never	1 (4)	4 (17)
Changed quality of orgasm		
Better	0 (0)	3 (16)
Unchanged	24 (92)	16 (84)
Worse	2 (8)	0 (0)

Three women (16 percent) experienced an increased quality of orgasm, postoperatively. None of the women reported a decreased quality of orgasm. Preoperatively, all men were able to achieve orgasm. After the pouch operation one man (4 percent) became impotent (erectile dysfunction), and one patient who developed retrograde ejaculation reported a less intense orgasm.

Masturbation. Frequency of patients who used masturbation was the same before and after the pouch operation. All men used masturbation regularly or occasionally. Ten women (44 percent) had experience with masturbation and used it occasionally.

Symptoms of Sexual Dysfunction. None of the patients complained of anal pain, soiling, or fecal leakage during intercourse, and none experienced any discomfort from the pouch during intercourse, except for one woman who occasionally had a sensation of some stress from the pouch (Table 5). Most of the patients emptied the pouch just before intercourse. None of the women had dyspareunia or complained of vaginal discharge. Most women had some irregularities in the menstrual cycle after the operation, but, at the time of the interview, all women stated that they had returned to their normal preoperative cycle. One man suffered from erectile dysfunction, and one complained of retrograde ejaculation (Table 5).

Table 5.
Symptoms of Sexual Dysfunction

	No. of Women		No. of Men	
	Yes	No	Yes	No
Anal pain	0	22*	0	26
Pouch discomfort	1	21	0	26
Soiling	0	22*	0	26
Dyspareunia	0	22*		
Dysmenorrhea	0	23		
Vaginal discharge	0	23		
Impotence			1	25
Retrograde ejaculation			1	25

* One woman had never had intercourse.

DISCUSSION

Ulcerative colitis usually makes its debut at a younger age, when social and sexual contacts are built up. Surgical intervention is often required in the reproductive years and in the years when patients are active in the labor market. Therefore, an operative technique that cures the primary disease and also provides a long-term result that permits a life as normal as possible is required. Proctocolectomy cures the disease, but patients are left with a permanent, incontinent ileostomy. Although several studies have shown that patients adapt well to the presence of their ileostomy,[10–12] other studies have found that as many as 45 percent of patients with an ileostomy suffer from isolation, depression, and difficulties with social interaction.[13, 14] The ileal pouch-anal anastomosis operation cures ulcerative colitis and also seems to result in an improved quality of life. Thus, Pemberton *et al.*[8] found that patients with a pelvic pouch compared with patients with a permanent Brooke ileostomy had a significant advantage in performing seven different daily activities. Our results extend these findings: the capacity to work was increased and the limitation in leisure-time activities was decreased after the pouch operation compared with the period with ulcerative colitis and diverting ileostomy.

Regarding sexual activity, Pemberton *et al.*[8] found that patients with a pelvic pouch performed better than their Brooke ileostomy counterparts. Others have shown that sexual activity increased in approximately one-fourth of patients after construction of the pouch, compared with preoperative levels.[7] Unfortunately, sexual function was not described in detail in these studies. In a more detailed analysis of sexual function in women with a pelvic pouch, Metcalf *et al.*[15] found that the frequency of intercourse increased and incidence of dyspareunia decreased after the operation. In the present study patients were personally interviewed in an effort to get detailed information of sexual function. We found that approximately one-third of female patients had an increase in the frequency of intercourse, 16 percent experienced a better quality of orgasm, and none had dyspareunia or vaginal discharge after the pouch op-

eration. In agreement with others[7, 15] we found that increased sexual activity in women was generally attributed to improvement in general health. Frequency of intercourse and ability to achieve orgasm remained unchanged for the majority of men. Sexual activity of men was less affected by the presence of an ileostomy than that of women. Thus, 69 percent of men compared with 30 percent of women had intercourse during the period with an ileostomy. Two men developed sexual dysfunction (erectile dysfunction and retrograde ejaculation, respectively), which is the same as the experience in proctectomy for benign disease.[16, 17]

In a recent study[18] of patients with a permanent ileostomy, 87 percent of patients, when asked, stated that they would keep the ileostomy in preference to an ileoanal pouch. Answers to this question, however, would undoubtedly have been different if patients had had the opportunity to choose an ileoanal reservoir at the time of proctocolectomy. Thus, all patients in the present study and more than 95 percent of pouch patients in other series[7, 9] would choose an ileoanal reservoir again instead of a permanent ileostomy.

In summary, social and sexual functions of patients were improved after ileal J-pouch anastomosis when compared with the period with ulcerative colitis and the period with ileostomy. None of the patients wanted to return to a life with an ileostomy.

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