Patient Satisfaction After Surgical Treatment for Fistula-In-Ano

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PURPOSE: The surgical treatment of fistula-in-ano frequently results in recurrence of the fistula or postoperative anal incontinence. Despite these problems, most patients are satisfied with the results of their surgery. To clarify this apparent discrepancy, we attempted to identify factors that affect patient's lifestyles and may contribute to their satisfaction. METHODS: A questionnaire was mailed to 624 patients surgically treated for cryptoglandular fistula-in-ano at the University of Minnesota during a five-year period. Three hundred seventy-five patients returned their questionnaires. Patients who were followed up for a minimum of one year were included in this retrospective study. Associations between postoperative complications and patient satisfaction were identified by chi-squared tests and multiple logistic regression. Attributable fractions for patient dissatisfaction were calculated using study population dissatisfaction rates. RESULTS: Patient satisfaction was strongly associated with fistula recurrence, difficulty holding gas, soiling of undergarment, and accidental bowel movements. Effects of incontinence on patient quality of life were also significantly associated with patient satisfaction as was the number of lifestyle activities affected by incontinence. Patients with fistula recurrence reported a higher dissatisfaction rate (61 percent) than did patients with anal incontinence (24 percent), but the attributable fraction of dissatisfaction for incontinence (84 percent) was greater than that for fistula recurrence (33 percent). Patient satisfaction was not significantly associated with age, gender, history of previous fistula surgery, type of fistula, surgical procedure, time since surgery, or operating surgeon. CONCLUSION: Patient satisfaction after surgical treatment for fistula-in-ano is associated with recurrence of the fistula, the development of anal incontinence, and with the effects of anal incontinence on patient lifestyle. In our series of patients treated mainly with laying open of the fistula tract, patients with fistula recurrence had a higher dissatisfaction rate than did patients with anal incontinence. However, because anal incontinence was more prevalent than fistula recurrence, a higher fraction of dissatisfaction was attributable to anal incontinence.

[Key words: Fistula-in-ano; Recurrence; Incontinence; Quality of life; Lifestyle; Satisfaction]


Reports of the surgical management of fistula-in-ano focus almost exclusively on clinical outcomes, mainly recurrence of the fistula and the development of postoperative anal incontinence.1 Reported rates of recurrence range from 0 to 32 percent and postoperative anal incontinence from 0 to 63 percent, depending on the complexity of the fistula, the type of treatment, and the methods, completeness, and length of follow-up.2-5 Despite these significant rates of postoperative problems, few studies have examined the impact of fistula surgery on patients' perception of health and well-being. In our own series of 375 patients treated for chronic fistula of cryptoglandular origin, 8 percent of the patients experienced recurrence of the fistula and 46 percent reported some degree of incontinence persisting for more than a year after the operation.6 Surprisingly, only 12 percent of the patients were dissatisfied with the results of their surgery. A similar discrepancy between clinical outcomes and patient satisfaction had been found previously after the surgical treatment of fistula-in-ano6 and anal fissure.7 To identify factors that may contribute to patient satisfaction after surgical treatment of fistula-in-ano, we used data from our series of patients to compare patient satisfaction rates across the patient profile, characteristics of the fistula, types of treatment, and clinical outcomes. To gain further insight into the long-term experience of patients treated for fistula-in-ano, we explored the relationship between patient satisfaction and the effects of persistent anal incontinence on lifestyle activities.

PATIENTS AND METHODS

To obtain follow-up information regarding their postoperative experience, we mailed questionnaires to 624 patients who were surgically treated for fistula-in-ano at the University of Minnesota and affiliated hospitals during a five-year period by 12 Board certified colorectal surgeons. Patients eligible for this study were identified by retrospective review of patient charts and operative report.5 Only patients with chronic fistula of cryptoglandular origin were se-
lected. Patients were excluded if they had superficial fistula associated with fissure, inflammatory bowel disease, hematologic malignancy, preoperative incontinence, or if they underwent primary fistulotomy at the time of abscess drainage. Clinical results of this series of patients have been published previously. The type, grade, and duration of the incontinence were assessed with a scoring system that has been used routinely in our clinical practice. The questionnaire also requested information about the necessity of wearing a pad and lifestyle alteration caused by the incontinence (Fig. 1). Anal incontinence was defined

1. Did the operation heal the fistula? __yes__ no
2. How long did it take for the fistula wound to heal? ___ weeks
3. Have you developed any new abscess or fistula? __yes__ no
4. Have you required any further operation for abscess or fistula? __yes__ no
5. Have you had difficulty distinguishing between gas and stool?
   A. Never
   B. For a short period of time after my operation
   C. Ever since my operation
6. Have you had any problem holding gas?
   A. Never
   B. For a short period of time after my operation
   C. Ever since my operation
7. Have you had problem with soiling of your underwear?
   A. Never
   B. For a short period of time after my operation
   C. Ever since my operation
8. Have you had accidental bowel movements?
   A. Never
   B. For a short period of time after my operation
   C. Ever since my operation
9. Are you satisfied with the results of the operation?
   ___ Very satisfied
   ___ Satisfied
   ___ Dissatisfied
   ___ Very dissatisfied
If you answered "C" in any of questions 5 to 8 above, please complete the following questions
10. How often do you have problem holding gas?
    ___ Never
    ___ Rarely (Less than once a month)
    ___ Sometimes (More than once a month)
    ___ Frequently (More than once a week)
11. How often do you have staining of your underwear?
    ___ Never
    ___ Rarely (Less than once a month)
    ___ Sometimes (More than once a month)
    ___ Frequently (More than once a week)
12. How often do you have accidental bowel movements?
    ___ Never
    ___ Rarely (Less than once a month)
    ___ Sometimes (More than once a month)
    ___ Frequently (More than once a week)
13. Do you have to wear a pad?
    ___ Never
    ___ Only at night
    ___ Sometimes (Daytime)
    ___ All the time (Daytime)
14. Does this problem affect your life style?
    (Mark the best answer for each column)

    Physical Activities   Social Activities   Sexual Activities
    Not at all            ___            ___
    To some extent        ___            ___
    Greatly               ___            ___
15. Other comments: ________________________

Figure 1. Questionnaire for fistula recurrence, postoperative anal incontinence, and quality of life.