Experience with the One-stage Perineal Repair of Rectal Prolapse

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Friedman R, Muggia-Sulam M, Freund HR. Experience with the one-stage perineal repair of rectal prolapse. Dis Colon Rectum 1983;26:789-791.

Our experience with 27 patients undergoing 33 Altemeier procedures for repair of rectal prolapse is presented. The overall recurrence rate during a 1- to 17-year follow-up period is 35 per cent (per patients) or 50 per cent (per operations). There was no mortality and only minimal morbidity, although we were dealing with an elderly group of patients (average age 61 years) with many associated diseases (2.8 diseases per patient). Of 13 patients with successful anatomic repair, ten described it as a success, one developed an anal stricture, and two patients claimed only partial success, despite a perfect anatomic repair, due to lack of improved continence. Our results with the Altemeier procedure for the repair of rectal prolapse are unsatisfactory. However, as the procedure is well tolerated by elderly and sick patients, it should be reserved for those. [Key words: Rectal prolapse; Perineal repair; Recurrence of prolapse; Fecal continence; Elderly patients]

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COMPLETE RECTAL PROLAPSE in adult patients is a relatively uncommon, but disabling, condition. Operative correction of rectal prolapse is difficult and frequently unsuccessful. This is reflected in the more than 50 different operative procedures devised for the repair of this condition. No less disappointing can be a functional failure despite a successful anatomic repair.

This is a retrospective review of 24 years' experience in a series of 27 patients who had complete rectal prolapse treated by the one-stage perineal repair, as described and advocated by Altemeier *et al.*[1,2]

Material and Methods

From 1956 through 1979, 27 patients with complete rectal prolapse hospitalized at the Hadassah University Medical Center, underwent 33 prolapse repairs by the one-stage perineal repair originally described by Altemeier *et al.*[1] All patients suffered from true or complete prolapse. In this group there were eight men and 19 women (1:2.4). Average patient age at the time of operation was 61 years (range 21 to 88 years). Twenty-five operations (75.7 per cent) were performed on patients over the age of 50 years. Twelve patients had 19 previous unsuccessful operative interventions to repair the prolapse. Length of the prolapsed segment ranged from 5 to 20 cm, and the duration of prolapse varied from one month to 50 years. In 39.3 per cent of the patients, the operation was performed from 3 to 10 years after the appearance of the prolapse. Most patients complained of pain during defecation (25.9 per cent) and rectal bleeding (29.6 per cent). Less common complaints were the feeling of a mass (14.8 per cent), tenesmus (3.7 per cent), and purulent discharge (3.7 per cent). Eleven patients (40.7 per cent) had some degree of fecal incontinence. Twenty of 27 patients suffered from one or more accompanying diseases, with an average of 2.8 diseases per patient(cardiovascular, 13; central nervous and psychiatric, eight; pulmonary, two; gastrointestinal, six; external hernias, four; genitourinary, 16; musculoskeletal, five; diabetes, two).

Of 33 operations, 16 were performed under general anesthesia, while 17 were performed under spinal or epidural anesthesia. The length of resected bowel ranged from 5 to 40 cm, and over half of them were from 10 to 30 cm.

Results

There was no mortality in this series of 27 patients undergoing 33 operations. There were four complications (12.1 per cent): one patient had supraventricular extrasystolies; one had a hematoma, which drained spontaneously via the vagina; one had a pouch of Douglas abscess; and another had a late anal stricture. The postoperative hospital stay ranged from three to 24 days; 25.9 percent of the patients were discharged within the first postoperative week.

Received for publication April 29, 1983.

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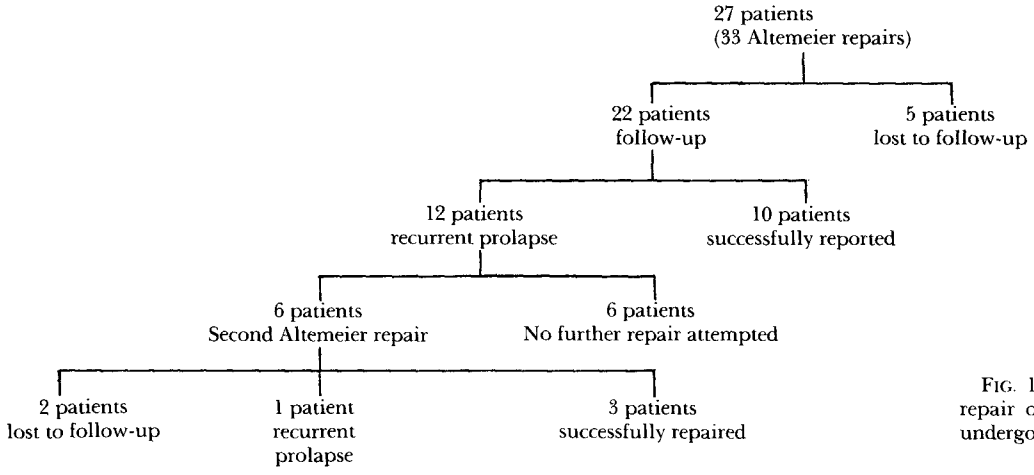

FIG. 1. Results of one-stage perineal repair of rectal prolapse in 27 patients undergoing 33 operative procedures.

Seven patients were lost to follow-up, so that the following results include 20 patients, or 27 operations, followed for one to 17 years. Thirteen of 20 patients (65 per cent) had a successful repair with no recurrent prolapse. Ten of these underwent one Altemeier repair, while in three patients the repair was successful only after a second operation. Of the seven patients who had recurrent prolapse, six underwent one operation, and one patient was operated upon twice (Fig. 1).

When considering the total number of Altemeier procedures performed, there were 13 successful operations of 26 available for follow-up (50 per cent). Recurrence of prolapse occurred within one to three months after surgery in three patients, one to five years after surgery in five patients, and six to ten years after surgery in another five patients. Follow-up in 13 patients with no recurrence ranged from two to 17 years.

Continence was very difficult to evaluate. However, six patients claimed improvement in continence, four claimed worsening, and 12 claimed no change. Of the 13 patients who had a successful anatomic repair with no recurrence, ten described it as a success, one patient claimed it a failure because she developed an anal stricture, and two patients described it as only a partial success, due to lack of improvement in continence despite a perfect anatomic repair.

Discussion

The one-stage perineal repair of rectal prolapse was first described by Altemeier *et al.* in 1952.[1] The Altemeier repair is based on the concept that a true rectal prolapse is essentially a sliding hernia of the cul-de-sac, which invaginates the anterior rectal wall and descends through the anal canal as an intussusception, pushing part of the rectum ahead of it. The surgical procedure eliminates the sliding hernial sac, repairs the hernial defect, and removes redundant bowel.[2]

About ten years ago, we reviewed our limited experience with 14 patients undergoing the Altemeier procedure and found a recurrence rate of only 21 per cent with satisfactory functional improvement.[3] These results encouraged us to continue performing this operation. However, with many more surgeons doing the procedure, and with follow-up periods of up to 17 years, now we are faced with a 35 per cent recurrence rate in 27 patients or 50 per cent recurrence rate in 33 operations. These results are similar to the 38.5 per cent recurrence rate in Altemeier operations for rectal prolapse reported from the Mayo Clinic,[4] but differ very markedly from the 2.8 per cent recurrence rate reported by Altemeier *et al.* in 1971.[5] No mortality was reported in any of the series of Altemeier operations,[3-5] and the morbidity rate was relatively low, 12.1 per cent in the present series of cases, 7.6 per cent in the Theuerkauf *et al.* report,[4] and 16.9 per cent in Altemeier's series of 106 patients. Considering the advanced age of most patients, the number of associated diseases (2.8 accompanying diseases per patient in the present report), and the complexity of the surgical procedure, these are relatively low rates of postoperative complications, suggesting this procedure to be particularly suitable for treatment of rectal prolapse in the elderly and sick patient. Another important consideration, when evaluating rectal prolapse repair, is continence. Although conti-

nence is difficult to evaluate, six patients claimed definite and significant improvement in continence, while a few others claimed only limited improvement. Four patients claimed worsening of continence. Altemeier *et al.*[5] without mentioning numbers, claim that within three to five months most patients gain improved continence, while Theuerkauf *et al.* report that, in their series, only two of ten patients examined remained severely incontinent. No patients lost continence, while 33 per cent of severely incontinent patients improved significantly after surgery.[4] Our present results with the Altemeier procedures for the correction of rectal prolapse are far from satisfactory. One explanation might be that a great number of surgeons performed a limited number of this technically complex operation. This observation is backed partly by the fact that, in some of the recurrent operations, a hernial sac, or excess length of bowel, was found and resected. We assume that with more experience and meticulous surgical techniques, the recurrence rate could be reduced to close to the excellent results reported by Altemeier *et al.*[5] The procedure is well tolerated by elderly and sick patients and should be reserved for those.

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Announcement

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