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Endorectal Repair of Rectocele

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A modification of Sullivan's procedure for endorectal repair of "low" rectocele was completed in 59 patients with local anesthesia. Associated anorectal pathology was corrected in all patients. The technique is described. At follow-up, the results were as follows: 37 excellent (62.7 per cent), 10 good (16.9 per cent), eight fair (13.6 per cent), and four poor (6.7 per cent). [Key words: Rectocele; Endorectal repair; Colporrhaphy, posterior]

SULLIVAN¹ *et al.* first described endorectal repair of rectocele, and Capps² has reported favorable results employing essentially the same technique. We report here on follow-up data for 59 patients, providing further evidence for the usefulness of this procedure.

Rectocele presents as protrusion of the anterior rectal wall into the vagina. The anterior rectal wall is supported by the rectovaginal septum, separating it from the vaginal mucosa. The endopelvic fascia, mainly constituting the septum, blends with the puborectalis portion of levator ani, with its midline decussation of fibrous tissue, and the perineal body. With general laxity of tissue in advancing years, multiparity, poor bowel habits, perineal relaxation and increased intra-abdominal pressure in constipation, the weakened septum stretches. The hernial pouch moves the perineal body downward and forward. The pouch, with a bolus of stool, acts as an intussusceptum and progressively stretches the anterior wall of the rectum,² as demonstrable by cineradiographic studies. The weakness is readily identifiable by digital examination, particularly when the patient is asked to strain down.

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Conventionally, rectocele has been repaired transvaginally by the gynecologist. The posterior repair is combined with concomitant anterior repair of cystocele. The weakened rectovaginal septum, particularly its supraperineal portion in the "low" variety of rectocele, may be approached endorectally for better access. The associated anorectal pathology is corrected simultaneously.

Materials and Methods

We examined 59 patients who had had endorectal repair of rectocele. All women were parous and had associated anorectal pathology that was corrected also. The mean age of patients was 53 years, and the mean length of follow-up was 18.8 months.

Surgery was performed in symptomatic patients, and only the "low" variety of rectocele was selected for repair. Initial conservative management with correction of bowel habits is advised. Enterocele and associated cystocele was a relative contraindication. On occasion, the rectocele was repaired transanally, while the cystocele was managed by the urologist during the same hospitalization.

The surgical technique employed was a modification of the procedure described by Sullivan *et al.*¹ Pediatric phospho-soda enemas were administered the night before and the morning of surgery. No antibiotic bowel preparations were used, although recently oral metronidazole has been initiated the night before surgery and continued for 48 hours after surgery. The patient was placed in a jack-knife position (Fig. 1), and local anesthesia was infiltrated (Fig. 2) as described previously,³ utilizing 0.5 per cent lidocaine with 1 in 200,000 epinephrine and 300 U.S.P. units of hyaluronidase.

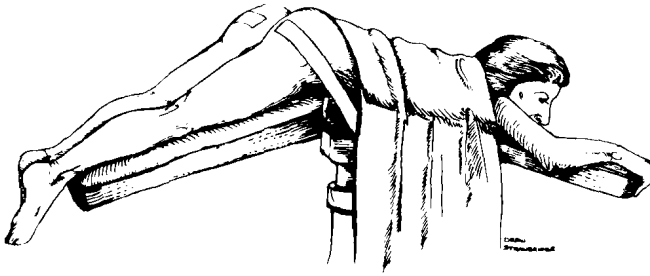


FIG. 1. Patient assumes the jackknife position.

A large Hill-Ferguson retractor was inserted into the anal canal, exposing the anterior half of its circumference (Fig. 3). A transverse incision was made at the dentate line; two vertical incisions were made at either end and extended proximally for a distance of about 7 cm (Fig. 4). A mucomuscular flap was raised with a broader base, until a point above the weakness in the septum was palpated (usually up to the cervix or 7 to 8 cm from the dentate line). Hemostasis was maintained meticulously. Three or four interrupted transverse sutures of 3-0 polyglycolic acid were placed to plicate the lax rectovaginal septum without penetrating the vaginal mucosa, starting at the dentate line and progressing proximally (Fig. 5). Two or three vertical sutures of the same material were then placed between the most proximal and distal points, plicating the rectovaginal septum and, therefore, shortening the anterior rectal wall (Fig. 6). Almost the whole flap of excessive mucosa was excised (Fig. 7). The edge of the flap was sutured to the dentate line with running 50 Dexon®. The lateral incisions were approximated similarly (Fig. 8). The anorectal pathology was treated appropriately. Packing usually was not needed. Early postoperative bowel movements were encouraged with psyllium seed. Sitz baths were recommended, and the patient usually was discharged on the second postoperative day.

Results

Outcomes were classified as excellent if the patient became totally asymptomatic, good if the symptoms improved considerably, fair if slight improvement resulted, and poor if the patient offered the same symptoms or adverse complications persisted. Thirty-seven of 59 patients (62.7 per cent) were judged to have excellent results. Eighteen patients, earlier in the series and before the vertical suture was incorporated, had delayed healing due to mucosal retraction. Ten of those (16.9 per cent) were classified as having good results and eight (13.6 per cent) as fair. Three of these patients had anal stenosis,

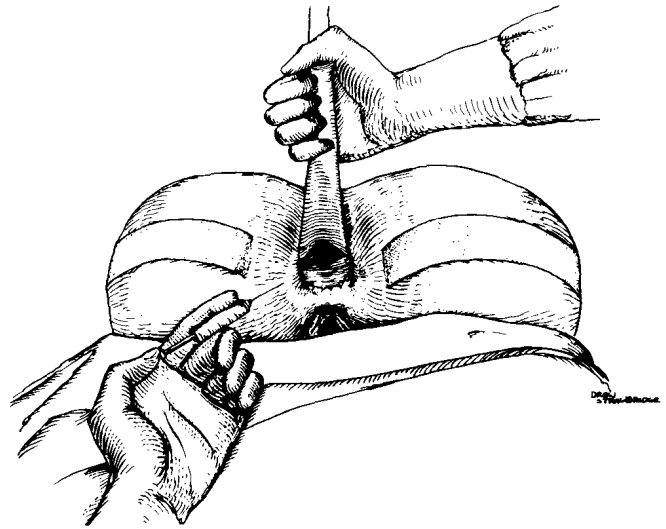


FIG. 2. Infiltration of local anesthesia.

which was not corrected at surgery. We now customarily perform a lateral sphincterotomy if stenosis is detected. Three patients (5.1 per cent) developed rectovaginal fistulae, which healed spontaneously within six months. These three, and one patient with persistent enterocele, (6.7 per cent) were considered, as having poor outcomes.

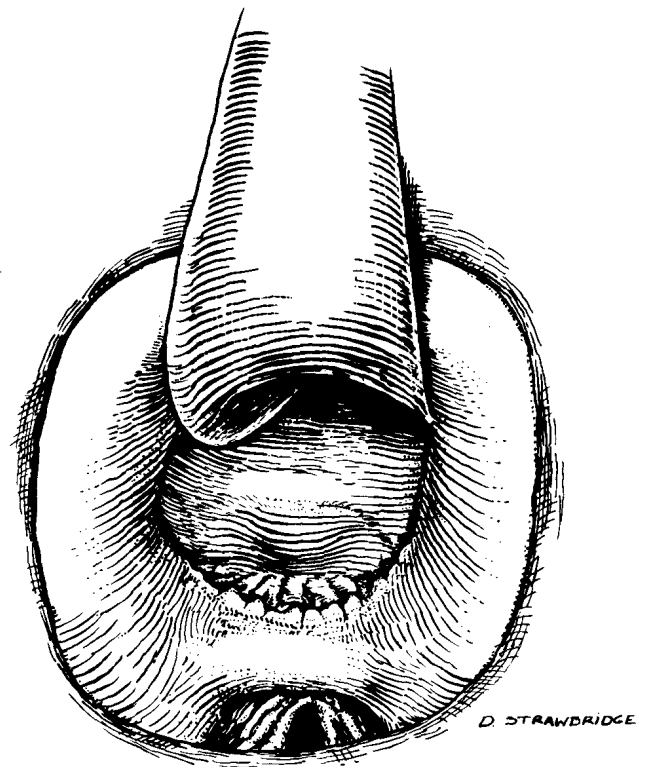


FIG. 3. Insertion of Hill-Ferguson retractor into the anal canal.

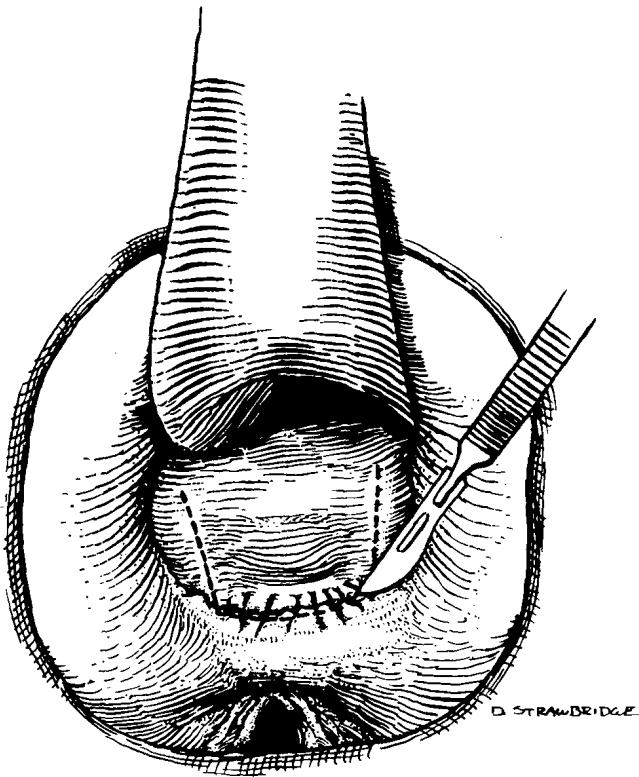


FIG. 4. The transverse incision at the dentate line and the sites of two vertical incisions.

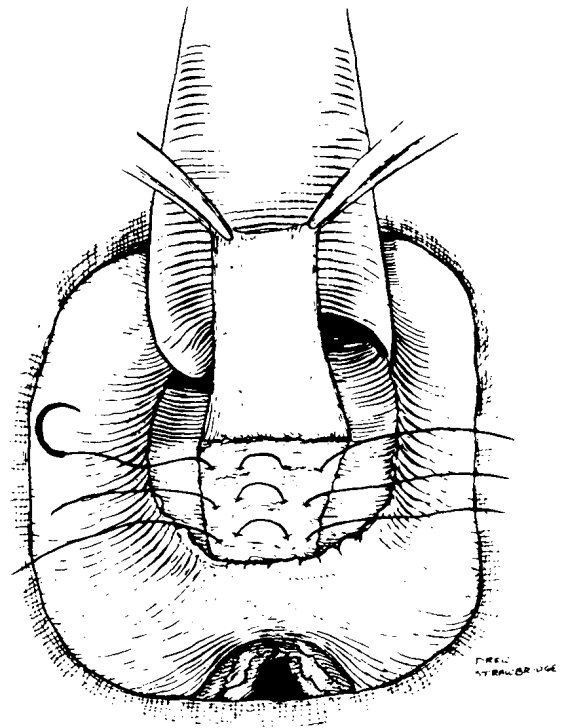


FIG. 5. Transverse sutures plicating the lax rectovaginal septum.

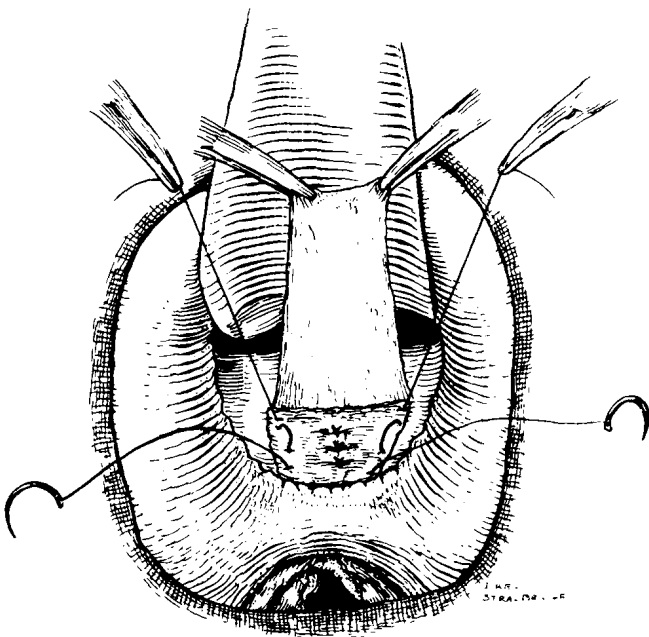


FIG. 6. Vertical sutures plicating the rectovaginal septum.

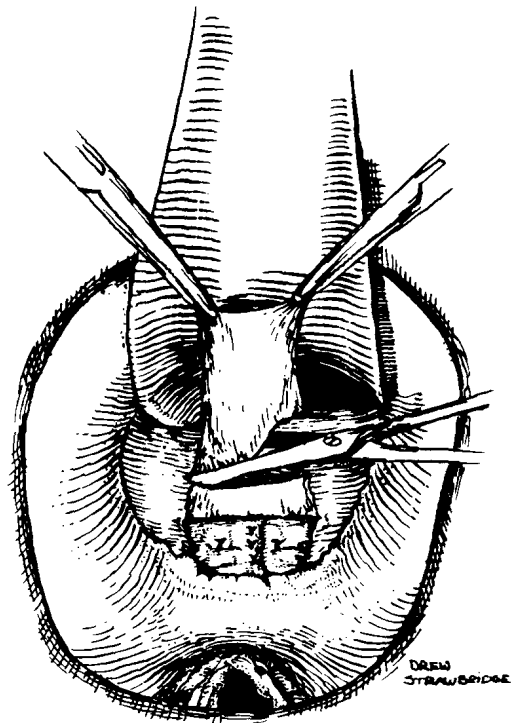


FIG. 7. Excision of the flap of excess mucosa.

Discussion

Very little attention has been given to the presence of rectocele, and the symptoms are attributed to anorectal pathology. These patients account for the majority of persistent symptoms. Often the history is obtained only following explicit solicitation. It seems only logical that, if the patient has significant anorectal pathology with associated rectocele, surgical repair may be carried out concomitant with anorectal surgery.

Conventionally, rectoceles are treated transvaginally by gynecologists, using a posterior colporrhaphy.⁴ Redding⁵ described the relationship between perineal relaxation and associated anorectal disease. Marks⁶ advocated rectocele repair by the combined vaginal and rectal approach. Sullivan *et al.*¹ applied this approach and were discouraged by the persistence of symptoms of associated anorectal pathology. This prompted them to propose a transrectal approach, in which associated anorectal pathology may be corrected at the same time. Capps² reaffirmed the efficacy of this approach in dealing with the low anterior suprasphincteric pocket, which he demonstrated to be the cause of symptoms.

The patient may present with two subsets of symptoms:

- 1) "I don't seem to be able to empty myself."
"I feel constant pressure down there."
"There is a bearing down sensation."
"I have to use a syringe or an enema to empty myself."
"I have to use pressure around the rectum."
"I have to use my finger in the vagina or the rectum."
"I have to use rolled tissue in the rectum."
"There is a sensation of a pouch or a hernia down there."
- 2) Symptoms related to associated anorectal pathology, such as bleeding, hemorrhoidal swelling, and pain. Many times previous anorectal surgery has been performed and the rectocele overlooked; the symptoms recur and are often ignored for a long time.

It is important to obtain a history from these patients regarding urinary frequency, stress incontinence, previous cystocele repair, and previous anorectal surgery.

Rectocele is diagnosed simply by digital examination. The weakness of the anterior wall is felt, often with a large retained fecal residue in the pouch. The hooked finger presents the rectovaginal septum at the vaginal introitus.

Hemorrhoids, fissures, papillae, and anal stenosis are noted, and proctosigmoidoscopy is performed. Since clinical symptoms and physical signs are often disproportionate, treatment should be directed toward symptomatology. Patients who report constipation as a major component of their symptom complex should be offered an initial trial of dietary manipulation and bulk laxatives.

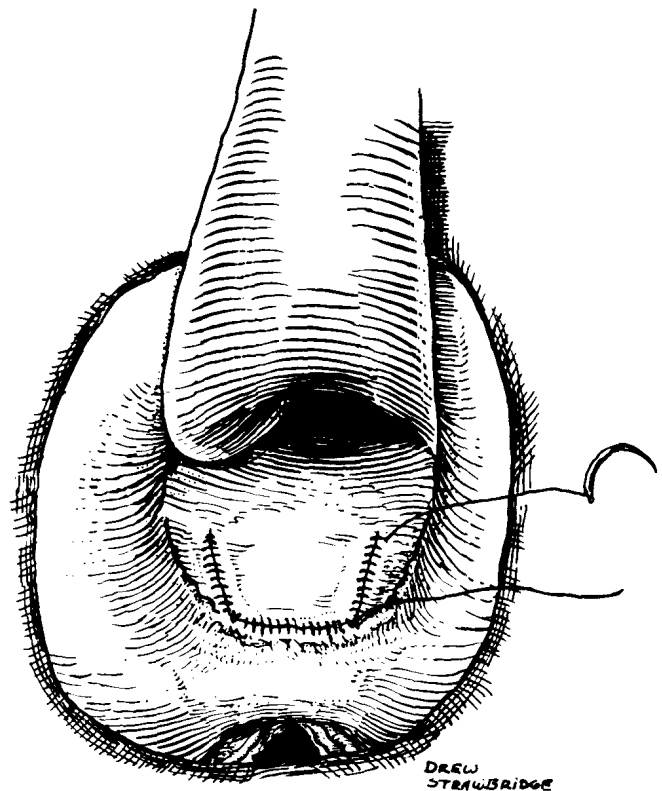


FIG. 8. Suturing the shortened mucosal flap.

Only the "low" variety of rectocele is amenable to satisfactory endorectal repair, especially when associated anorectal pathology is present. When the rectocele is high (enterocele) or is accompanied by a cystocele, simultaneous repair by the gynecologist is preferred.

The early experience with this operation has provided a basis for several recommendations. Advanced cases of perineal relaxation (*e.g.*, enterocele) should be excluded; these should be repaired by more advanced procedures, as proposed by Uhlig and Sullivan,⁷ or may require transvaginal repair. Better awareness of associated problems, such as stenosis, should prompt concurrent sphincterotomy. Inadequate hemostasis may lead to hematoma formation, with subsequent rectovaginal fistula. Expectant management of rectovaginal fistulae is recommended for several months. Flap retraction, mucosal sloughing, and delayed healing were noted in 18 patients. By incorporating vertical plicating sutures later in our series, as recommended by Sullivan *et al.*,¹ tension on the flap was eliminated, and the flaps became considerably shorter and viable. The basic principle of fashioning a flap with a wider base and incorporating some muscle is paramount.

Although the number of patients classified as having fair and poor results seems high, a search of gynecologic literature failed to reveal comparable complication rates and results of posterior colporrhaphy.

The endorectal approach for repair of rectocele provides the following advantages: It is a lesser procedure, there is an associated correction of anorectal pathology, the procedure may be performed with local anesthesia, there is a more direct access to suprasphincteric area, there is a restoration of anorectal angle by anterior plication of puborectalis, and a shorter hospital stay is required.

The disadvantage of the endorectal approach is the inability to correct cystocele simultaneously and/or deal with enterocele.

Acknowledgment

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Announcement

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