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Case Report

Perineal Rectosigmoidectomy for Rectal Prolapse Secondary to Rectal Cancer: A Case Report and Literature Review

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Abstract **We report here an 83-year-old woman presented with severe degree of rectal prolapse secondary to rectal cancer. She underwent perineal rectosigmoidectomy to correct rectal prolapse and also to treat rectal cancer. The result was good with free surgical margins and good sphincter function. This case demonstrated an alternative procedure[1] to treat rectal cancer in an extremely old patient with significant underlying disease.**

Keywords: **Perineal rectosigmoidectomy, Rectal Prolapse, rectal cancer**

INTRODUCTION

Rectal Prolapse is defined as a full-thickness protrusion of rectal wall through anus. The true incidence is unknown due to underreporting. The disease had peak incidence in women aged over 60 years.

It is associated with other pelvic floor disorders such as bladder or uterine prolapse, cystocele, enterocele and rectocele. Its definite etiology is still unknown but may be precipitated by defect of the pelvic floor, long-standing constipation and strain, progression of internal rectal intussusception and pudendal nerve damage leading to dysfunction of anal sphincters.[2-4] Anatomic features commonly found include weak anal sphincter with levator disease, deep anterior pouch of Douglas, poor posterior rectal fixation with long rectal mesentery and redundant rectosigmoid. Risk factors are long-standing constipation, chronic straining during defecation, pregnancy (although 35% of female patients are nulliparous), previous surgery and neurologic diseases (trauma/lumbar disc disease, spinal cord tumors).

Clinical presentations of rectal prolapse are reducible anal mass, fullness at the anus with sneezing, coughing or defecation, fecal incontinence, bloody or mucoid discharge, constipation, foul odor, difficulty in maintaining hygiene, changes in urinary function, and concurrence of other pelvic organ prolapse. The differential diagnoses are protruding hemorrhoids, polyps, rectal carcinoma, and other prolapsed organs. Diagnostic investigational tools are based on clinical features, defecogram, anoscopy, rectosigmooidoscopy and colonoscopy. In one study, patients with rectal prolapse had a 5.7% frequency of associated cancer.

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Treatment options are 1) medical treatment such as bulk-forming agents and stool softeners; 2) surgery via transabdominal, transperineal or laparoscopic approach.

Case Report

An 83-year-old woman presented with severe degree of rectal prolapse for three years. She had underlying severe chronic obstructive pulmonary disease and coronary heart disease. Abdominal and perineal examination revealed a tumor mass at the tip of rectal prolapsed segment. Biopsy was done and revealed well differentiated adenocarcinoma. Preoperative ECG showed cardiomegaly with ischemic pattern. Chest X-ray showed chromic bronchitis with perihilar infiltration. Abdominal ultrasonography showed normal liver. The patient underwent surgical resection with perineal rectosigmoidectomy technique. The patient was placed in lithotomy position. Perineal rectosigmoidectomy was performed as shown in Figures 1-5. Segmental resection of the prolapsed colonic segment with end to end anastomosis and mesenteric resection was performed. The pathologic report showed well differentiated adenocarcinoma at rectosigmoid junction with transmural invasion to subserosa and perirectal tissue. Margins at both surgical and circumferential ends were free. Mesenteric lymph nodes showed metastasis in one out of 14 lymph nodes. Postoperative outcome was uneventful and the patient resumed normal diet and bowel movement with good sphincteric function.

Steps of Operative Procedure

Figure 1-6

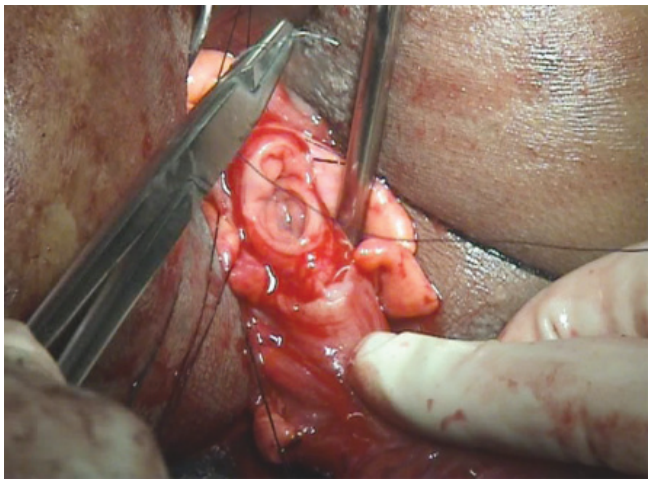


Figure 1

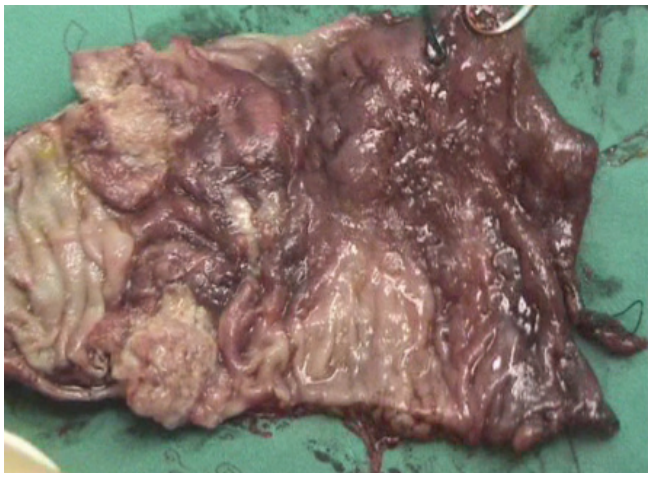


Figure 2

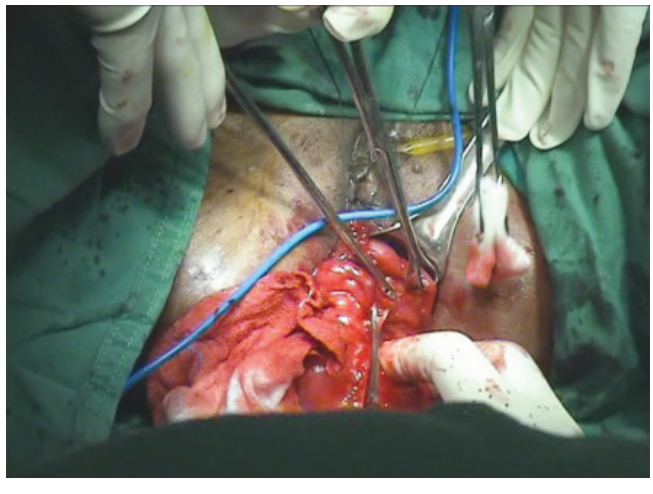


Figure 3

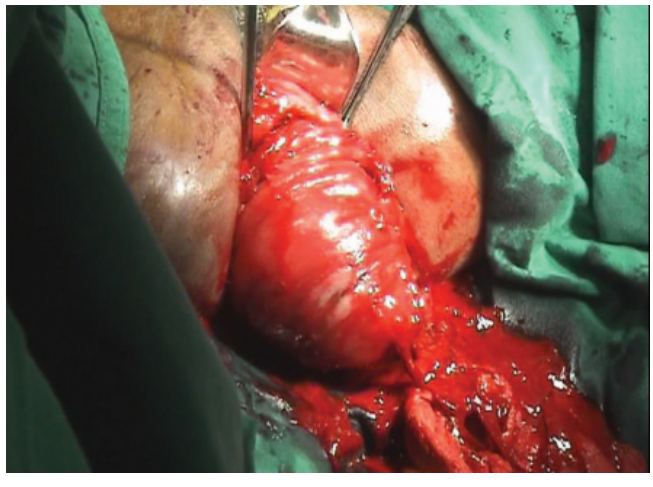


Figure 4

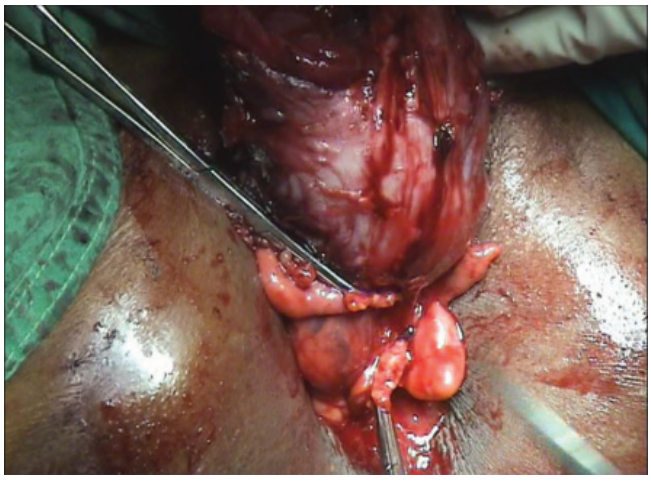


Figure 5



Figure 6

Discussion

Rectal prolapse secondary to rectal cancer needs surgical resection. Perineal rectosigmoidectomy is an alternative operative procedure in a case of patient who has serious underlying diseases not tolerable to major abdominal operative procedure.[2-4] The surgical techniques require good surgical skill to achieve good anastomosis and adequate surgical margin especially awareness of sphincter muscles to avoid postoperative incontinence.[5,6] The benefit of perineal rectosimoidectomy is low complication rates compared to transabdominal approach and allows elderly patients to have early postoperative ambulation.[7,8] Due to less pain in perineal operation, patient can have early breathing exercise thus lower incidence of respiratory complications such as atelectasis.

In conclusion, rectal prolapse is a specific but common condition in old age patient. The etiology or leading point should be investigated.[9] The physician needs to look for rectal cancer at the tip of prolapsed segment. Perineal rectosigmoidectomy is a good alternative operative procedure in patients with severe co-morbidities.[10]

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