Original Article

Perineal rectosigmoidectomy on treatment of rectal procidentia: analysis of 48 cases

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ABSTRACT: Objective: To evaluate results obtained in 48 cases of perineal rectosigmoidectomy in patients with rectal procidentia. **Methods**: 48 medical records of patients undergoing PRS were analyzed, retrospectively. **Results:** Before surgery, 44 patients (77.1%) reported complaints of anal mass and rectal bleeding was reported 13 times (22.8%). The period of hospitalization was 3.91 days (2 to 12 days). Women were the majority (85.4%). The mean age was 73.8 years (49 to 101 years). The average time of surgery was 72 minutes (40 to 90 minutes). Mechanical anastomosis was performed in 72.9% and manual in 27.1%. Among the 12 (25%) patients with fecal incontinence, continence was achieved in 2 cases. Postoperative complications occurred in five cases – 10.5% (two pneumonia and three anastomotic leakages). Recurrence was verified in four patients (8,3%). There were no deaths related to the procedure. **Conclusion:** Perineal rectosigmoidectomy is a good surgical option for rectal procidentia, with low morbidity and mortality, low recurrence rate and short hospitalization length.

Keywords: colectomy; perineum; rectal prolapse.

RESUMO: **Objetivo:** Avaliar o resultado de 48 casos de procidência retal submetidos a retossigmoidectomia perineal. **Método:** Análise retrospectiva de 48 prontuários de pacientes submetidos a retossigmoidectomia perineal. **Resultado:** Antes da cirurgia, 44 pacientes (77,1%) queixavam-se de "massa na região anal" e sangramento transretal foi relatado em 13 (22,8%) casos. O tempo de internação médio foi de 3,91 dias (2 a 12 dias). O gênero feminino prevaleceu na amostra (85,4%). A idade média foi 73,8 anos (49 a 101 anos). O tempo médio de cirurgia foi 72 minutos (40 a 90 minutos). Optado por anastomose mecânica em 72,9% dos casos e manual em 27,1%. Entre os 12 (25%) pacientes com incontinência fecal, foi alcançada continência em 2 casos. Complicações pós-operatórias ocorreram em cinco casos – 10,5% (duas pneumonias e três deiscências de anastomose). Recorrência foi verificada em quatro pacientes (8,3%). Não houve óbito relacionado ao procedimento. **Conclusão:** A retossigmoidectomia perineal é uma boa opção cirúrgica para procidência retal, com baixa morbimortalidade, baixo índice de recorrência e curta internação hospitalar.

Palavras-chave: colectomia; períneo; prolapso retal.

Study carried out at the Division of Coloproctology of the Department of Surgery and Anatomy of the Ribeirão Preto Medical School at Universidade de São Paulo (USP) – Ribeirão Preto (SP), Brazil.
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INTRODUCTION

Rectal procidentia (RP) is characterized by protrusion of rectum through the anus with all of its layers[1]. Although more than one hundred surgical procedures were described so far for the treatment of RP, the ideal treatment method still remains unclear[2].

RP occurs at the extremes of age[1,3]. In the pediatric patients, it occurs with an equal sex distribution and correlates to collagen-associated disorders. In the adult population, incidence is after the fifth decade and women are most affected – about 80 to 90% of patients[3,4]. It happens, indeed, due to acquired loss of collagen strength, included here pelvic support weakness, associated with aging, notably in women.

The symptoms of RP could mimic the warning signs for rectal cancer: mass, change in bowel habits or even bleeding and tenesmus. Loss of control of stool, because of strechting of the sphincter muscles and pudendal nerves, may occur in advanced stages[5]. These conditions are associated with deterioration of quality of life.

Non operative-treatment has been chosen sometimes, since many patients are elderly or carry high operative risk, but with poor results when isolated therapy[5]. Biofeedback, although, has been used with satisfactory results improving postoperative results and function[6].

According to the route of access, the operative treatment is classified as "abdominal"[7-9] or "perineal"[10-12]. The perineal access has the clear vantage of, avoiding laparotomy, exposing patients (usually elderly) to less surgery damage, and postoperative complications (risks of a general anesthesia and postoperative pain, for example). Recently laparoscopic sigmoidectomy and rectopexy has appeared as therapeutic modality[13].

The Altemeier procedure consists in an excision of rectum and a portion of sigmoid colon, full-thickness[14]. This technique, actually described in the 19th century by Mickulicz[15], has been more associated with Altemeier since 1971[14]. The short operating time, the fact of only spinal cord anesthesia required (in despite of general anesthesia), the short length of hospital stay and good results corroborate the increased indication of this procedure[16].

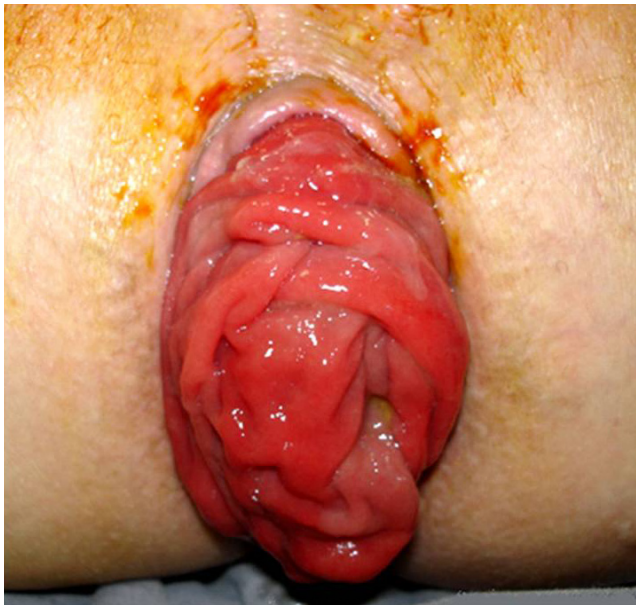

Figure 1. *Full-thickness rectal procidentia.*

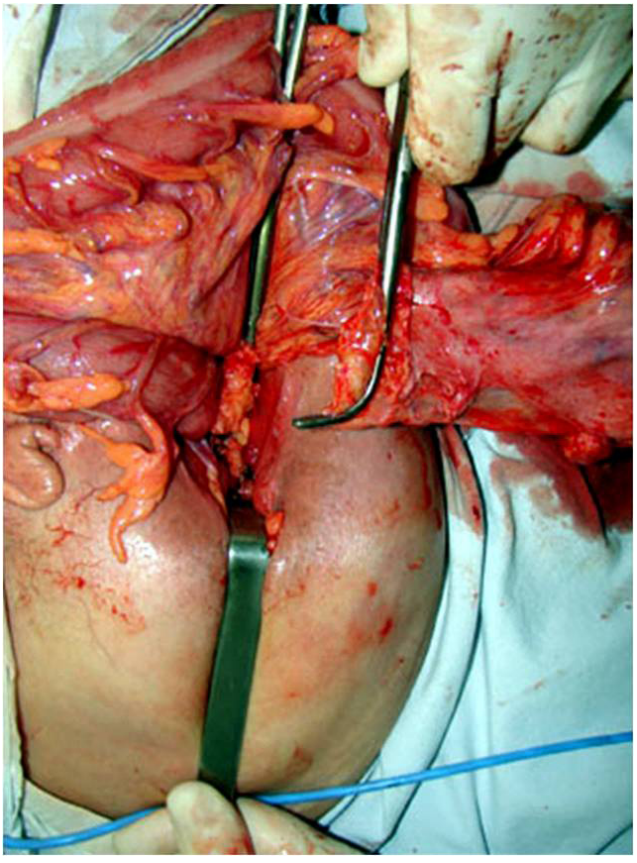

Figure 2. *Rectum and colon dissection with mesocolon ligature.*

PURPOSE

To evaluate 48 cases of perineal rectosigmoidectomy (Altemeier procedure, PRS) in patients with full-thickness RP, preoperatively, on short and long term after surgery, operated by staff of the Division of Coloproctology of the Department of Surgery and Anatomy of Ribeirão Preto Medical School at University of Sao Paulo.

METHOD

Medical records of 48 patients undergoing PRS from 2000 to 2011 were analyzed. Data evaluated included age at the time of surgery, gender of patients, clinical complaints, elapsed procedure time, type of anastomosis (manual suture or stapler), postoperative course (short and long-term), hospital stay length, recurrence or incontinence. All patients were followed up for 8 months or more. The surgical technique is shown in Figures 1 to 6.

RESULTS

Mean age of patients was 73.8 years (ranged from 49 to 101 years). Most of patients were women (85.4 *versus* 14.6% of men). Anal mass was reported in 44 patients (77.1%) and rectal bleeding in 22.8% (13 patients) – Figures 7 to 9.

Figure 3. *Complete exposure of dissected colon and rectum*

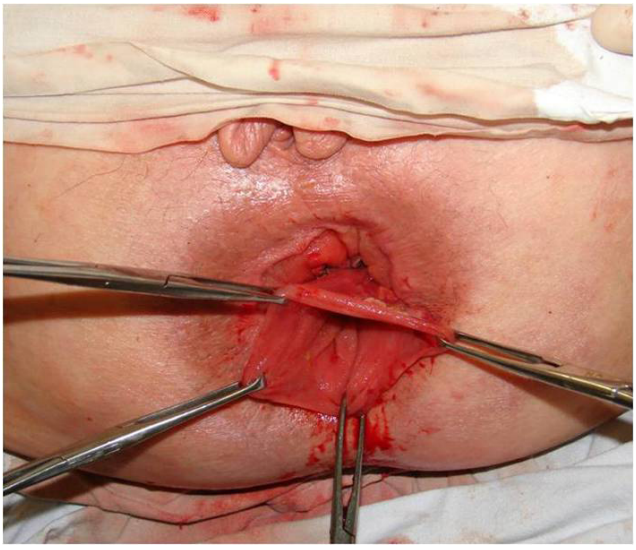

Figure 4. *Colonic segment prepared for the anastomosis.*

Figure 5. *Stapled coloanal anastomosis.*

Figure 6. *Perineum after surgery.*

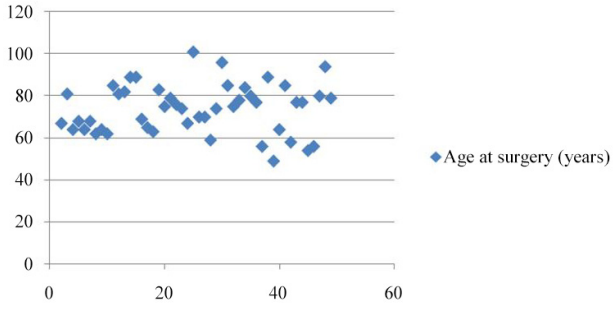

Figure 7. *Age of patients at the surgery.*

The average surgical time was 72 minutes (range 40 to 90) – Figure 10. Mechanical anastomosis was performed in 72.9% cases and manual in 27.1% (Figure 11). Postoperative complications occurred in five cases – 10.5% (two cases of pneumonia and three cases of anastomotic leakages). There were no deaths related to the procedure, although one patient died a long time after surgery (myocardial infarction, about 2 months after surgery). The period of hospitalization ranged from 2 to 12 days, with an average of 3.91 days (Figure 12).

Out of the patients, 25%reported incontinence of stools. Continence was achieved in 2 cases (16.6%) among 12 (25%) patients with fecal incontinence.

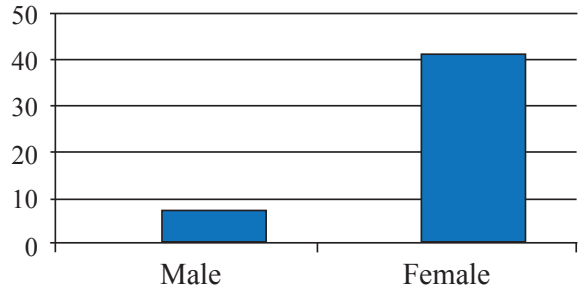

Figure 8. *Gender of patients.*

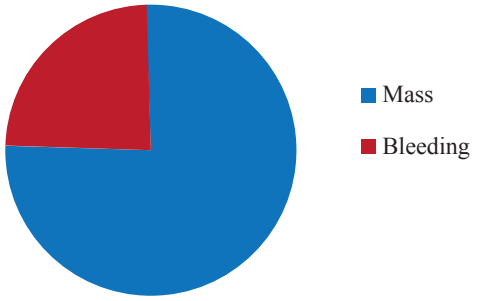

Figure 9. *Main complaint of patients.*

Four patients presented recurrence of RP. They were submitted to a new Altemeier procedure, with successful outcomes.

DISCUSSION

The number of assessed patients leads to satisfactory evaluation of surgical results[17].

The average age (73.8 years) was consistent with epidemiological data widely exposed on RP analysis, including even patients over 90 years – one of them was 101 years.

The largest number of women compared to the number of men is due to weakness of the perineal muscles associated with aging, notably in multiparous[3,4].

A brief procedure avoiding a laparotomy contributed to a shorter hospitalization (average of 3.91 days) and a low rate of postoperative complications, including infectious (complications rate of 10.5), without procedure-related mortality. It corroborates the feasibility of Altemeier procedure for elderly and high-risk patients.

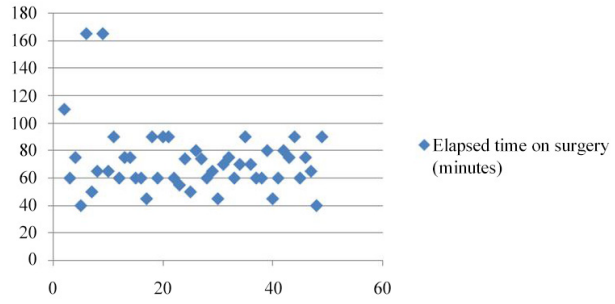

Figure 10. *Elapsed time on surgery.*

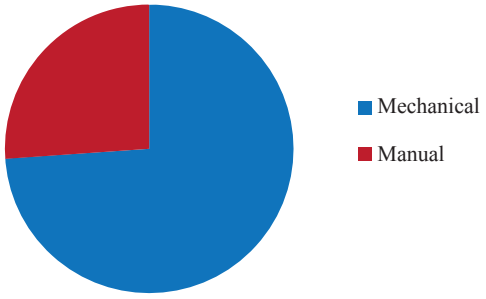

Figure 11. *Type of anastomosis.*

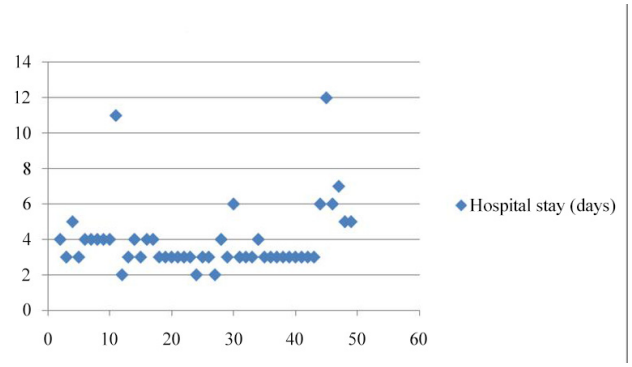

Figure 12. *Hospital stay.*

The continence recovery involves no more stretch of the anal sphincter and pelvic floor fibers after surgery[18]. Only 16.6% (two patients) recovered continence after surgical procedure. The results may due to the long interval between symptoms onset and arrival at our hospital, with patients presenting irreversible neural and muscular damages of the pelvic floor on admission[4,5].

CONCLUSION

The PRS is a good surgical option for RP in elderly patients, with low morbidity and mortality, low recurrence rate and short hospitalization length.

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