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Case Report

From conventional to innovative: fascia latae graft repair for ileal pouch prolapse: a case report

Jessica Capre-Pereira[1,2]*, Jorge-Ivan Gonzalez[3], Helber-Fabian Perez-Imbachí[2,4,5], Eduardo Posada[2], Abraham Kestenberg[1,2]

[1]División de Cirugía Colorrectal, Fundación Valle del Lili, Cra. 98 #18-49, Cali, Colombia
[2]Facultad de Ciencias de la Salud, Universidad ICESI, Cl. 18 #122-135, Cali, Colombia
[3]Departamento de Cirugía Plástica, Clínica Corpus and Rostrum, Cl. 3 Oe. #34-96, Cali, Colombia
[4]Centro de Investigaciones Clínicas, Fundación Valle del Lili, Cra. 98 #18-49, Cali, Colombia
[5]Capítulo de Futuros Cirujanos, Asociación Colombiana de Cirugía, Cl. 100 #14-63, Bogotá, Colombia

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***Correspondence:**
Dr. Jessica Capre-Pereira,
E-mail: jessica.capre@fvl.org.co.

ABSTRACT

Ileal pouch prolapse (IPP) is a rare complication of total proctocolectomy reconstruction, usually managed with biological mesh, and although the use of autologous tissues represents a surgical alternative, there is little evidence in the literature about it. This report aims to present the case of a 29-year-old woman with familial adenomatous polyposis and total proctocolectomy, who presented with rectal pain and bleeding. She was diagnosed with IPP and was approached with fascia latae grafting, achieving symptomatic improvement and an uncomplicated postoperative course. This case highlights the use of autografts of the patient's own tissues as a surgical alternative that generates a lower surgical cost with adequate clinical results.

Keywords: Colonic pouches, Prolapse, Autografts, Proctocolectomy, Case reports

INTRODUCTION

Reconstruction with ileal pouch after total proctocolectomy is a treatment of choice in patients with pathologies such as inflammatory bowel disease, ulcerative colitis, multiple colonic polyposis syndromes, among others.[1,2] Rarely, it has been estimated that 0.3-0.35% may present with IPP, which not only compromises the function of the ileal pouch but also impacts the quality of life of those who present it.[3] IPP occurs when there is a protrusion of the pouch wall into the lumen or through the anal canal and can be mucosal or full thickness[3]. In the case of mucosal prolapse, its management can be conservative or surgical, however, those who present a full thickness prolapse of the ileal pouch should be managed surgically, performing a pexy with or without biological mesh.[4,5]

To perform prolapse reduction, the use of biological mesh is recommended given the characteristics of the small bowel tissue used for its fixation, and the evidence of lower risk of recurrence with the use of it. However, the use of these instruments involves a high cost, which limits their availability.[2.6]

Therefore, the possibility of using grafts from patient's own tissues has been formulated. However, there is poor evidence available in the literature to evaluate the possibility of performing autografts from the patient's own tissues, such as fascia, which would generate a lower surgical cost with adequate clinical results.

Therefore, we present the case of an adult patient with a diagnosis of IPP that was managed by using an autograft of fascia latae, with satisfactory post-surgical results.

CASE REPORT

A 29-year-old female with a history of familial multiple adenomatous polyposis, who underwent total proctocolectomy with ileal pouch creation in July 2021 and ileostomy with subsequent uncomplicated closure in August 2022. She consulted the emergency department for proctalgia and acute onset rectorrhagia, with vital signs in the normal range but with IPP and stigmata of bleeding. Therefore, she was evaluated by the colon and rectum service who performed a total colonoscopy, where they found partial prolapse of the anterior face of the ileoanal anastomosis pouch in J (Figure 1). It was decided to hospitalize and schedule for surgical management with laparoscopic ventral proctopexy with mesh. In the absence of biological mesh, a multidisciplinary meeting was held where it was decided to perform prolapse correction with the use of an autologous fascia latae graft.

Prior to the procedure, she was prepared with polyethylene glycol and liquid diet. Three days after her admission, she was taken to the procedure by coloproctology and plastic surgery. During the laparoscopic procedure, rectal prolapse of the ileal pouch in J with adhesions to the posterior face of the uterus and interases with partial volvulus generated by the same adhesions, which were released until free visualization was achieved. Subsequently, peritoneal dissection was performed up to the sacral promontory and lateral to the ileal pouch, caudal to the cul-de-sac, individualizing each structure with monopolar and hegar dilators.

Synchronously, the plastic surgery department marked the fascia latae tendon in the left thigh, with a lower limit 10 cm above the femoral condyle, with a posterior limit 4 cm anterior to the lateral septum of the thigh and an upper limit 15 cm from the anterosuperior iliac spine (Figure 2). Incisions were made in the lateral aspect of the thigh, with dissection of the suprafascial plane, release and a fascia latae graft of 18x5 cms was taken, closing incisions with vicryl 2.0, 3.0, prolene 2.0 and Jackson Pratt 15Fr drain was left (Figure 3). When the graft was obtained, fixation was performed to the anterior wall of the ileal pouch using PDS 2-0 and Prolene 2-0 (Figure 4), fascia latae was fixed to the sacral promontory with Secure-strap® and reinforced with prolene 2-0 (Figure 5). Hemostasis was verified and abdominal wall closure was performed without complications (Figure 6).

In the early postoperative period, no alterations were found, and the patient was discharged from the general hospitalization service 3 days after the procedure. Postoperative outpatient follow-up by plastic and colorectal surgery was performed 22 days after the procedure, with no new symptoms or findings. Six months after the procedure, a flexible sigmoidoscopy was performed, showing a healthy ileal pouch, without prolapse or other abnormalities. Currently, the patient is in ambulatory follow-up for Colon and Rectum, in medical management with loperamide to control bowel habits, completing 2 years of follow-up.

Figure 1: Ileal pouch prolapse.
Physical examination under sedation in colonoscopy, IPP is observed on pushing.

Figure 2: Fascia latae graft extraction.
Dissection performed by plastic surgery, with demarcated limits for extraction.

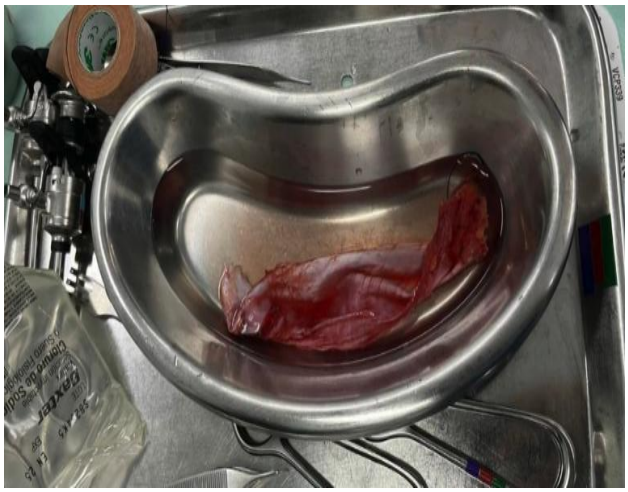

Figure 3: Fascia latae graft.
Visualization in a sterile kidney bag prior to placement.

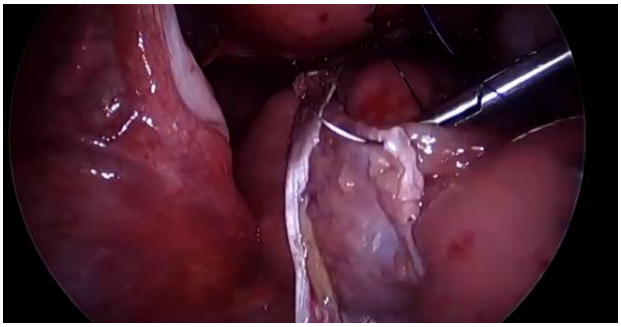

Figure 4: Ileal pouch fixation with fascia latae graft.
Fixation to the anterior wall of the pouch with suture.

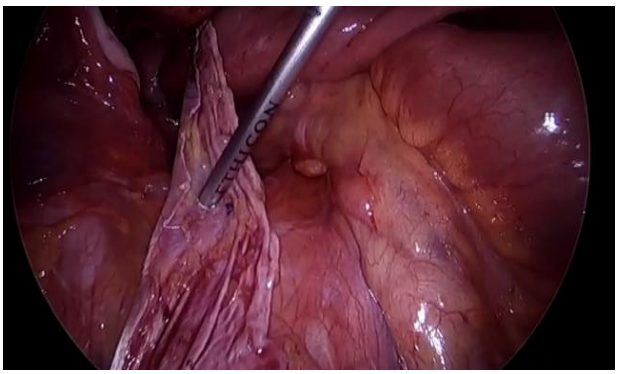

Figure 5: Ileal pouch fixation with fascia latae graft.
Secure-Strap® fixation.

Figure 6: Ileal pouch fixation with fascia latae graft.
Visualization after complete graft fixation.

DISCUSSION

IPP is a rare phenomenon, and the predisposing factors for its occurrence are unknown, although it usually occurs in the first two years after the procedure.[7] Although in the case presented it occurred in a woman, the literature does not describe a direct association with sex, and it is usually associated with symptoms such as tenesmus, rectal pain or external tissue prolapse, which were partially present in the case presented.[2,3]

As risk factors, a study published in 2020 by Gao et al suggests that a lower amount of fatty tissue around the pouch (between 9.3 and 18.5 cm²), family history of inflammatory bowel disease and low body weight (BMI 22.1±3.6) could be predictors of prolapse.[8] In the case presented, the patient had no family history of inflammatory bowel disease and did not meet criteria for low weight. However, the fatty area around the pouch was not evaluated, so its relevance in this case is unknown.

Although mucosal prolapses can be managed conservatively, full thickness prolapses require surgical management, which was the approach presented in the patient.[9] This approach is usually performed by pouch pexy with or without mesh placement, being these surgical interventions safe and with acceptable results.[9] Although the evidence is limited, lower recurrence rates are reported with the use of mesh, and the use of biological mesh has a lower potential risk of infection and erosion than synthetic mesh.[2,4]

Transabdominal, perineal, and laparoscopic approaches have been described for ileal pouch fixation, but the current literature provides limited evidence on techniques that omit suture fixation or the use of biological meshes.[10] In 2022, Provenza et al reported the case of a 56-year-old patient who underwent surgical correction of an IPP using 2 ml of Evicel® fibrin sealant, applied to the posterior aspect of the pouch and the left pelvic wall, following a prior recurrence despite the use of a biological mesh.[3] Although the initial postoperative outcome was satisfactory, the patient experienced a recurrence of the prolapse 13 months after the procedure.

In the present case, the patient has not experienced any recurrence up to two years after the prolapse correction, suggesting that the use of grafts may represent a viable alternative without increasing the risk of recurrence in the medium or even long term. Consistent with this observation, a prospective study by Ava et al published in 2024 evaluated postoperative morbidity associated with fascia latae grafts for pelvic organ prolapse reconstruction in 108 patients.[11] The study reported minimal morbidity and only minor complications, such as thigh bulges, seromas at the donor site, and mild paresthesia near the incision, none of which were bothersome and typically resolved with conservative management.[11] In our case, the patient has not presented any of these complications to date.

The use of the patient's own autografts as an alternative to biological or synthetic meshes is still a developing field, with limited evidence in the current literature. However, this case illustrates that such a strategy may represent an innovative surgical option, with the potential to reduce operative costs without compromising clinical outcomes. Controlled clinical trials or multicenter observational studies are needed to systematically evaluate the advantages and limitations of the use of autografts versus biological meshes in the treatment of ileal reservoir prolapse. Nevertheless, the findings of this case suggest

that repair with autologous tissue may constitute a safe and effective alternative.

CONCLUSION

The case presented demonstrates that surgical correction of IPP using an autologous fascia latae graft is technically feasible, safe and potentially effective in the medium term, with no evidence of recurrence up to two years of follow-up. This alternative is emerging as a valid option in scenarios where biological meshes are not available, allowing good clinical outcomes to be maintained and reducing the costs associated with the procedure.

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