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Research Article

The Modified Buie Operation for the Treatment of Hemorrhoidal Prolapse: Experience and Results of 12 Years

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Abstract

Background: Hemorrhoidal prolapse is defined as protrusion through the anal canal of internal hemorrhoids covered almost entirely by rectal mucosa permanently or with the slightest effort. The surgical technique used to resolve this pathology can be controversial, especially when it is circumferential or crown. Various procedures have been proposed, some of them with serious complications or difficult to solve properly. The modified Buie technique can solve this pathology by avoiding them.

Objective: Prospectively evaluate the results obtained in the surgery of the haemorrhoidal prolapse by employing the technique Buie modified alone or in combination with another technique.

Design: Observational prospective.

Patients and Methods: 131 consecutive patients operated on by the same surgeon between October of 2007 and May 2019 - 140 months - for hemorrhoidal prolapse technique Buie modified alone or combined with another technique.

Results: The average age of the sample was 47.3 years; 55.7% were male. All patients were carriers of a partial or circumferential or crown hemorrhoidal prolapse. Frequent bleeding was the predominant symptom (100%) followed by permanent exit (90.07%). Technique Buie modified alone was carried out at 48, 86% and combined with Ferguson procedure in operation 51, 14%. The average number of hospitalization days was 1.03. Fourteen patients (10.6%) reported occasional bleeding during the defecation, which gave way spontaneously in all cases. One patient (0.76%) presented a mild stenosis that was solved with succinct digital anal dilations; Another patient (0.76%) had an anal fissure during the initial postoperative controls that he gave with medical treatment. Four patients (6%) who underwent a Ferguson operation concomitantly had a bed opening with healing changes during the first control at 15 days and only one (1.5%) persisted in the second control at 30 days when was retested at 6 months showed proper healing. No anal stenosis or wet anus was observed due to mucous ectropion in the medium or long term controls.

Conclusion: The operation Buie modified alone or combined with the procedure Ferguson turns out to be a surgical alternative very economical, relatively easy to learn, you can treat us in a single surgical act both hemorrhoidal prolapse as the external component almost always present, with a low level of complications and recurrence postoperative pain acceptable.

Keywords: *Hemorrhoidal Prolapse; Modified Buie Operation*

Introduction

Hemorrhoids have been known and treated for at least 4000 years [1]; described so impinges natal in about 40% of colonoscopies control and more than 30,000 patients a year are surgically treated for this condition only in Britain [2]. Hemorrhoidal prolapse is defined as the protrusion through the anal canal of internal hemorrhoids covered almost entirely by rectal mucosa permanently or with the slightest effort [3]. Said protrusion is a result of slippage in flow direction of the "vascular cushions" describes by Thompson, may be sectoral or circumferential or crown [3]. The surgical technique to choose when satisfactorily resolving this condition is somewhat controversial, particularly when its presentation is in crown [3]. The classic procedure amputation of Whitehead [4,5] described by the end of the nineteenth century and posteriors modifications conjunction with other techniques were proposed to solve this entity [6,7]. However, some permanent complications such as mucous ectropion or anal stenosis were observed during its practice and development. Since the year 1995, the use of mechanical sutures part of the work of Longo for the treatment of hemorrhoidal disease [8,9] proved practical, innovative and attractive procedure, but unresolved, in principle, in the same prolapse surgery hemorrhoidal and flaps or protrusions skin remnants that very often the accompany with the aggregate having observer some severe complications in addition to its cost [10]. Nearly four decades earlier, in 1960, Louis Buie, in the second edition of his book Practical Proctology, published a technical imputative for the treatment of hemorrhoidal prolapse that bears his name and which avoids principle complication on is previously mentioned [11].

From October 2007, interested and attracted by this procedure and in order to provide a comprehensive solution to the same surgical act and reduce costs, we surgically intervened a consecutive series of patients with hemorrhoidal prolapse using Buie technique with some modifications, alone or associated with another technique. The experience and the results obtained are presented below.

Materials and Methods

A prospective observational study was designed that included all patients with hemorrhoidal prolapse undergoing haemorrhoidectomy with Buie technique alone or combined with another technique, in two private institutions in Córdoba, Argentina, from October 2007 to May 2019. Variables that were taken into account for data collection were the following: age, sex, preoperative symptoms such as constipation, occasional bleeding, frequent bleeding, the latter being defined as one that occurs two or more times in seven days, perianal humidity and itching It was also reported whether the technique was used alone or in combination and with which technique; the sanatorial stay; the presence of postoperative complications such as: bleeding, infection, mucous retraction or partial or total disintegration of the same, stenosis or wet anus due to the presence of mucous ectropion. Postoperative controls performed at 15 and 30 days were also collected; These controls were extended to 6 and 12 months in most cases. A pain scale was not established to objectively assess it. We excluded all those patients who had no haemorrhoidectomy using the Buie technique alone or in combination with another technique as well as those who did not have a complete medical history.

All of our patients underwent a routine proctological evaluation that consisted of anal inspection, rectal examination, anoscopy and total video colonoscopy (VCT) only in those over 40 years with proctorrhagia. They were also asked for cardiovascular assessment and preoperative blood tests. The pre-surgical preparation was similar to that already described in our previous work, as was the protocol followed on the day of hospitalization. Regarding to operate technical employed was carried out to Buie modified alone or combined with the proceed of Ferguson, as described in the previous presentation and illustrate a photographic sequence (Figure 1 to 5); being the immediate postoperative management with respect to the use of antibiotics and analgesics the one already recorded previously. This prospective work was previously approved by the Ethics and Training and Teaching Committee of both Sanatoriums and the patients were duly informed about the surgical procedure to be carried out; it was accepted in all cases.

Results

Between 10/01/2007 and 05/31/2019 (140 months), 459 consecutive patients with hemorrhoidal disease of which 131 (28.54%) had a diagnosis of hemorrhoidal prolapse were surgically operated by the same surgeon. what they did was a modified Buie operation alone or combined with the Ferguson technique, forming the sample to be analyzed. The remaining 328 patients were excluded.

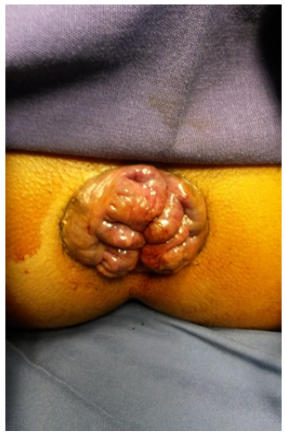

Figure 1: *Hemorrhoidal prolapse in corona.*

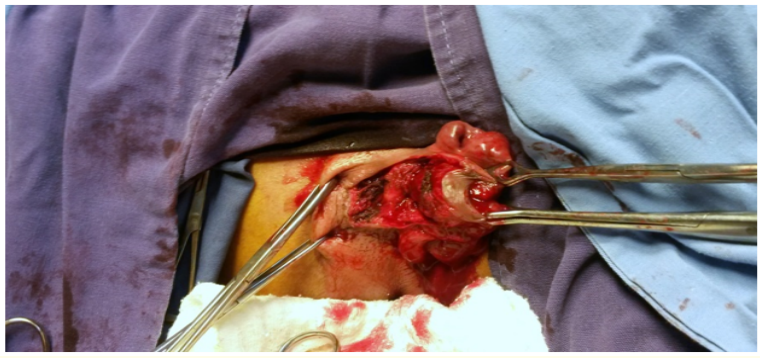

Figure 2: *"Mobilization" of the hemiano right flag.*

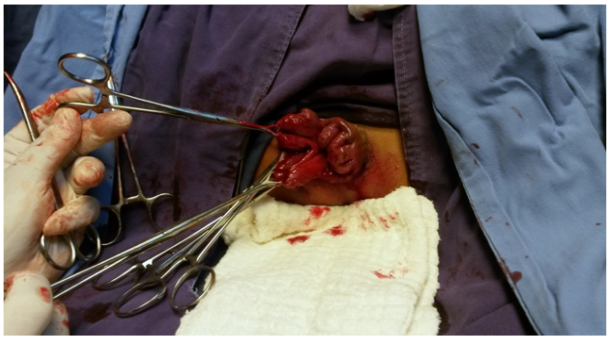

Figure 3: *Fully mobilized right flat.*

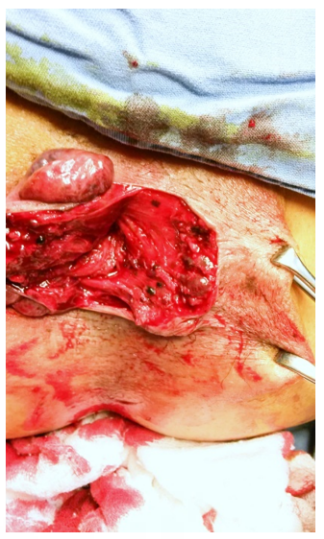

Figure 4: *Mobilization of the left hemian flag.*

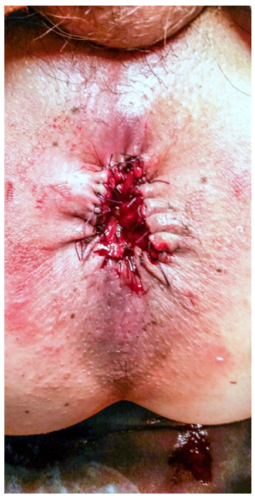

Figure 5: *Immediate postoperative.*

The average age was 47.3 years (19/82), of which 55.7% (73/131) were male. The main symptom was frequent bleeding which was present in 100% of cases. Permanent exit was reported in 90.07% (118/131); perianal humidity in 78.6% (103/131); pruritus in 74.8% (98/131). Constipation was cited by 53.43% of patients (70/131) (Table 1). No patient reported occasional bleeding. The video colonoscopy total performed in 95 patients (72.5%).

Symptoms	Patients	%
Frequent bleeding	131/131	100%
Falling out	118/131	90,07%
Perianal moisture	103/131	78,60%
Pruritus	98/131	74,80%
Constipation	70/131	53,43%

***Table 1**: Complains symptoms.*

During the operative act, sectoral hemorrhoid prolapse was observed in 67 patients (51.14%) and circumferential or in crown in 64 (48.86%). A first group was performed operation Buie modified associated with the Ferguson procedure on hemiano left (51.14%) while those where the prolapse presented in corona (48.86%) was performed one operation of Buie bilateral for hemianos always beginning the procedure by the right hemi anus.

Regarding the immediate postoperative complications, bleeding from the ready-made suture was not observed, nor infection or wet anus. Fourteen patients (10.6%) reported occasional bleeding during the defecation act, which gave way spontaneously in all cases. Only one patient (0.76%) presented a mild stenosis that was solved with successive digital anal dilations while the postoperative controls were carried out. Of the 67 patients who underwent a Ferguson procedure in the left hemiano, four (6%) presented a bed opening with healing changes during the first control at 15 days and only one (1.5%) persisted in the second control at 30 days. The latter, when it was evaluated again at 6 months, showed adequate healing. Only one patient (0.76%) presented an anal fissure during the initial postoperative controls that gave with medical treatment (Table 2). The sanatorial stay was 1, 03 days since one patient (0.76%) remained hospitalized for four days because she was unable to control the postoperative pain she referred. In the medium - 6 months - and long term - 12 months - follow-up, 122 (93.12%) and 109 patients (83.20%) could be controlled, all with satisfactory results. No stricture or wet anus was observed by mucous ectropion in any of them.

Suture line bleeding	0/131	0%
Infection	0/131	0%
Moist anus	0/131	0%
Occasional bleeding	14/131	10,6%
Anal stenosis	01/131	0,76%
Healing´s alterations	04/131	6%
Anal fissure	01/131	0,76%

***Table 2:** Postoperative complications.*

Discussion

Hemorrhoidal disease has a prevalence of around 5% in the general population although it can amount to up to 35 - 40% in those who consult for symptoms related to this condition [12]. In this new series that show the haemorrhoidal prolapse represented 28.5, 4% of the total cases surgically by hemorrhoidal disease (131/459) and refers us an evolutionary state advanced or surgical indication precis to a level of evidence I and a grade of recommendation A [13]. An "ideal" hemorrhoid operation should remove internal and external hemorrhoids completely, with minimal postoperative pain, a low percentage of complications, minimal recurrence and also be an easy procedure to learn and teach. It should also be cheap and with an adequate cost - benefit ratio [14]. Although different procedures have been de-

scribed over time to resolve the hemorrhoidal prolapse [4-7], Buie's with some modifications made explicit in the previous presentation [3] is we believe, the most It fits the concept of "ideal" operation and is the one of our preference, either alone - bilateral for hemianus - or associated with a closed technique such as the Ferguson operation. This procedure is our choice when the hemorrhoidal prolapse is sectoral and involves only hemiano right, permit tendon you effectual such as explained in an earlier presentation on hemiano left [12]. When the prolapse is circumferential or in crown, it is necessary to carry out a Buie procedure modified by hemians, both on the right and the left side. With the use of both techniques we have not evidenced complications in the immediate postoperative period such as: bleeding from the suture, infection, wet anus or partial or total disintegration of the mucosa. Only 14 patients (10.6%) reported episodes of occasional bleeding during the defecation act, which in all cases gave spontaneously. One patient (0.76%) had a mild stenosis during the initial postoperative controls that yielded with successive digital anal dilations. Of the 67 patients who underwent an associated Ferguson operation, only 4 (6%) evolved bed opening, which in all cases closed spontaneously properly. One patient (0.76%) presented an anal fissure during the immediate postoperative period that yielded with medical treatment.

All patients reported postoperative pain of varying intensity in particular during the first days and associated with the evacuation act; this pain was decreasing with the passage of time; We did not establish a scale in order to objectively assess this intensity, but if we add to the ketorolac used up to that point, nalbuphine and tramadol to all of them, in doses and time intervals previously recorded in our previous work, subjectively observing a greater during the postoperative controls Comfort with this scheme. We have no experience with the use of oral metronidazole (VO) as an aggregate for the control of postoperative pain after haemorrhoidectomy [15]; like the use of gabapentin (VO) for the same purpose [16]. Although in both cases the exact mechanism by which they would reduce postoperative post haemorrhoidectomy pain remains unclear, we believe like the use of gabapentin seems more interesting and we should make our experience in this regard.

In the year 1995, Antonio Longo present or a novel method for the treatment of rectal prolapse by using a mechanical suture as described in the previous presentation [3]. We have no experience in the use of it for the treatment of hemorrhoidal disease, particularly hemorrhoidal prolapse, but we keep clear reservations about its use. During the practice of hemorrhoidopexy with this circular suture, early complications have been observed and described - first 7 days - and late - after the seventh day. In the early stages, bleeding from the suture line is the most frequent, ranging from 0% to 68%; the urosepsis, secondary pelvic sepsis rectal perforation, fistula rectovaginal followed by sepsis, rectal perforation followed by sepsis with retro pneumoperitoneum, the pneumomediastinum and perineal associated sepsis synergistic gangrene are also early complications and observed serious and described with the use of this technique [17]. Among the late complications, once again bleeding from the suture line is the most frequent, ranging from 0.18 to 33 %, followed by defecation urgency - 0.2 to 25% - stenosis anal - 0 to 15.6% - and external hemorrhoidal thrombosis - 0.3 to 4% -. Rectal tenesmus also presents as a late complication and is much more frequent during hemorrhoidopexy than with other procedures. Likewise, a recurrence rate of hemorrhoids of around 58.9 % should be added with this procedure [17]. If all this we add s or cost - high and the deficit in the treatment of cutaneous or Flaps "plicomas" that routinely accompany or are present in the hemorrhoidal prolapse we can then justiciar why not use routine this technique with our patients.

The use of the modified Buie technique allows us to treat the hemorrhoidal prolapse and the skin flaps that almost always accompany in the same surgical act, with satisfactory functional and aesthetic results as these images show (Figure 6 to 14).

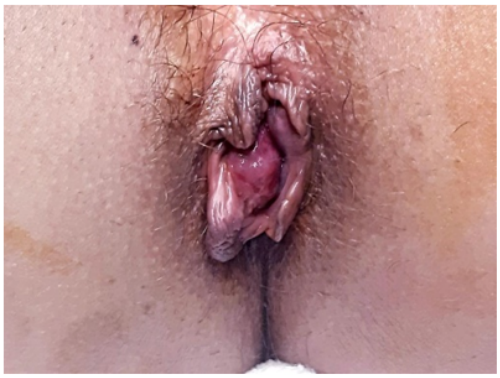

Figure 6: *Case 2: Hemorrhoidal prolapse in corona.*

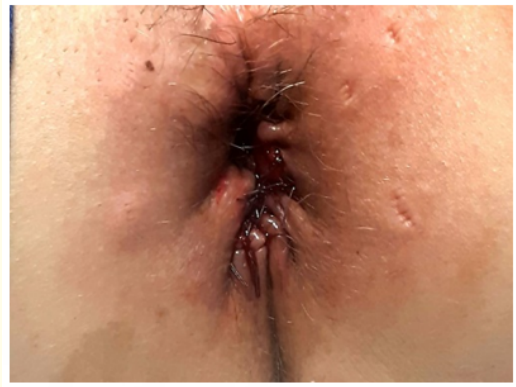

Figure 7: *Case 2: Immediate postoperative.*

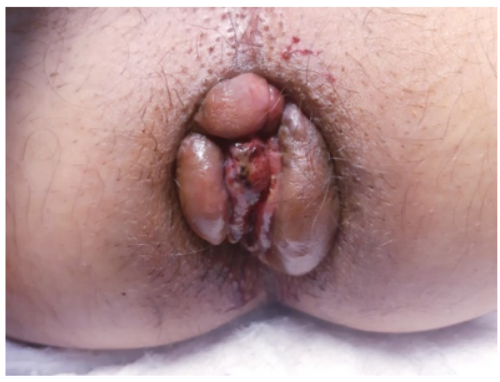

Figure 8: *Case 3: Hemorrhoidal prolapse in corona.*

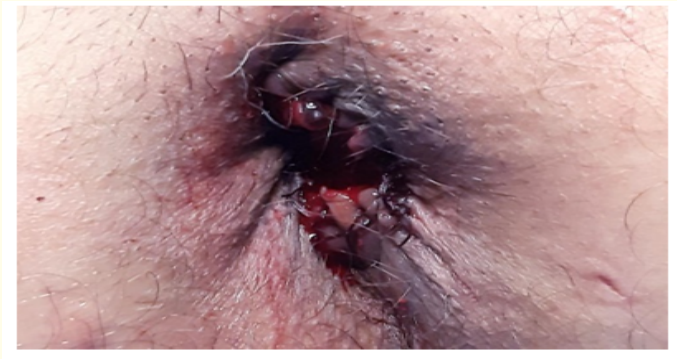

Figure 9: *Case 3: Immediate postoperative.*

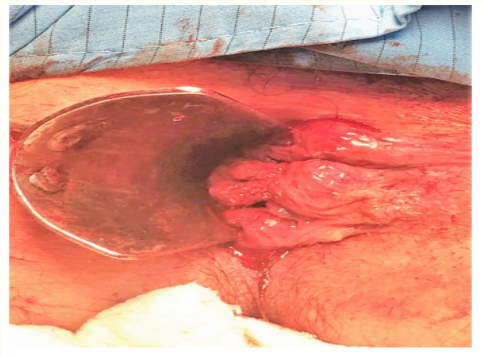

Figure 10: *Case 4: Left hemian hemorrhoidal prolapse.*

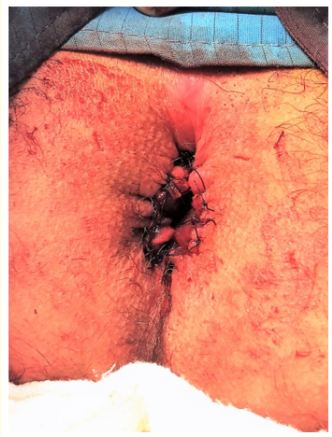

Figure 11: *Case 4: Immediate postoperative.*

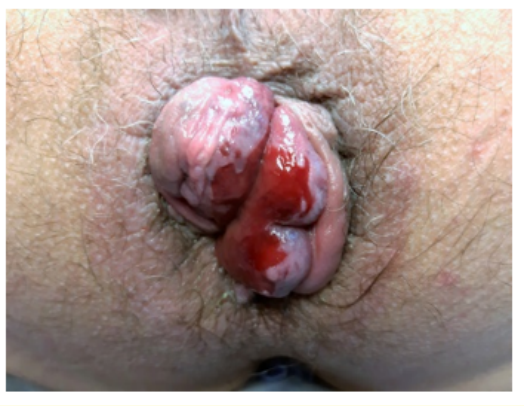

Figure 12: *Case 5: Hemorrhoidal prolapse in corona.*

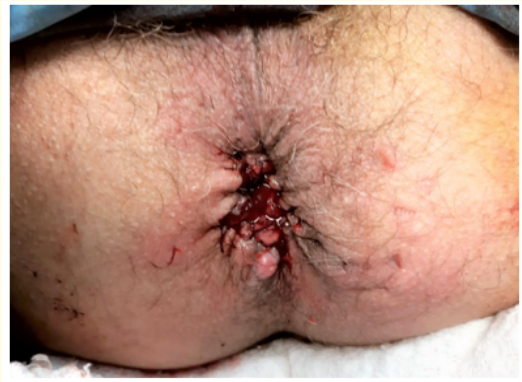

Figure 13: *Case 5: Immediate postoperative.*

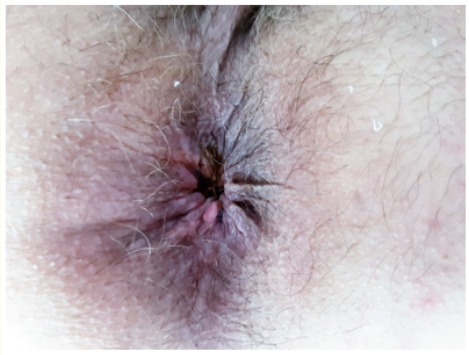

Figure 14: *Case 5: Late postoperative.*

Conclusion

The operation Buie modified is a Ferguson procedure that allows us to remove the internal and external hemorrhoids completely, with low percentage of complications, recurrence and minimum acceptable postoperative pain; and it is also relatively easy to learn and to teach, very economical and acceptable postoperative pain a relation cost - benefit adapts gives so should be considered when solving this pathology.

Bibliography

1. Graziano A. "Diagnosis and treatment of benign anal conditions". Revista Argentina Surgeon, Official story LXXV Argentine Congress of Surgery. Extraordinary No (2004).
2. Hollingshead JRF and Phillips RKS. "Haemorrhoids: modern diagnosis and treatment". *Postgraduate Medical Journal* 92 (2016): 4-8.
3. Ferrari LC., *et al*. "Validity and utility of the Buie operation modified in the treatment of hemorrhoidal prolapse". *Revista Argentina de Coloproctología* 25.4 (2014): 211-216.
4. Whitehead W. "The surgical treatment of hemorrhoids". *British Medical Journal* 1 (1882): 148-150.
5. Whitehead W. "Three hundred consecutive is cases of hemorrhoids cured by excision". *British Medical Journal* 1 (1887): 449-451.
6. Rand A. "The sliding skip-flat graft operation for hemorrhoids: a modification of the Whitehead procedure". *Diseases of the Colon and Rectum* 12.4 (1969): 265-276.
7. Wolff BG and Culp CE. "The Whitehead hemorrhoidectomy. An unjustly maligned procedure". *Diseases of the Colon & Rectum* 31.8 (1988): 587-590.
8. Longo A. "Mechanical hemorrhoidectomy using a circular stapler. Refresher course of hemorrhoidal disease therapy". 24th International congress of latin Mediterranean. Palermo: renna S.pa graphic, (1995).
9. Longo A. "Treatment of hemorrhoids disease by reduction of mucosa and prolapsed with a circular suturing device: a new procedure". Proceedings of the 6th world congress of endoscopy surgery. Bologna: monduzzi Editor (1998): 777-784.
10. De Miguel M., *et al*. "Surgical treatment of hemorrhoids". *Cirugía Española* 78.3 (2005): 15-23.
11. Buie L. "Hemorrhoids and rectal prolapse". In: Practical proctology 2nd ed. Springfield, Charles C Thomas (1960): 218-275.
12. Ferrari LC., *et al*. "Analysis and results of Ferguson's operation in the treatment of hemorrhoidal disease". *Revista Argentina de Coloproctología* 24.2 (2013): 85-89 .
13. Davis BR., *et al*. "The American Society of Colon and Rectal Surgeons clinical practice guidelines for the management of hemorrhoids". *Diseases of the Colon and Rectum* 61.3 (2018): 284-292.
14. Lohsiriwat V. "Treatment of hemorrhoids: a coloproctologist´s view". *World Journal of Gastroenterology* 21.31 (2015): 9245-9252.
15. Wanis KN., *et al*. "Sistemic metronidazolemay not reduce posthemorrhoidectomy pain: a meta-analysis of randomized controlled tials". *Diseases of the Colon and Rectum* 60 (2017): 446-455.
16. Poylin V., *et al*. "Gabapentin significantly decreases posthemorrhoidectomy pain: a prospective study". *International Journal of Colorectal Disease* 29 (2014): 1565-1569.
17. Porrett LJ., *et al*. "Documented complications of stapled hemorrhoidopexy : a systematic review". *International Surgery* 100 (2015): 44-57.

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