Outcomes following abdominal sacrocolpopexy for pelvic organ prolapse

Anushree Rawat*, Ruchika Garg, Poonam Yadav

Department of Obstetrics and Gynaecology, Sarojini Naidu Medical College, Agra, Uttar Pradesh, India

Received: 21 September 2020
Revised: 30 October 2020
Accepted: 02 November 2020

*Correspondence:
Dr. Anushree Rawat,
E-mail: anushree.jain10@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Hysterectomy is one of the most performed surgical procedures during lifetime. Almost 10% of women who have had a hysterectomy because of prolapse symptoms. Sacrocolpopexy (sacral colpopexy) is a surgical technique to repair pelvic organ prolapses. Specifically, it is intended to address apical or vaginal vault prolapse in women with lower perioperative morbidity, shorter hospital stay and allows a long-term anatomical restoration. It provides excellent apical support with lower rate of recurrence. Aim of present study was to assess the efficiency of conventional method of sacrocolpopexy and to assess the follow up complaints of patients.

Methods: This study is conducted in maternal and child health wing of Sarojini Naidu medical college from June 2019 till December 2019. Sacrospinous fixation was performed with conventional needle holder as compared to Miya hook. Data were collected from participants using a structured questionnaire. Follow up was conducted at 6 weeks and 12 weeks.

Results: In this study there were 43.3% pre menopausal patients and 53.6% menopausal patients. Maximum patients were multiparous i.e. para 2 (36.6%). Maximum patient belongs to POP Q stage 3. After 6 weeks of surgery maximum patients had pain in abdomen i.e. 3.33%, dyspareunia 8.33% and 100% success rate of sacropexy.

Conclusions: Sacrocolpopexy is a cost effective and safe procedure with high anatomical cure and patient satisfaction rate and low intra-operative and postoperative complications as well as recurrence rates.

Keywords: Vault prolapse, Pelvic organ prolapse, Sacrocolpopexy, Sacrospinous fixation/suspension, Conventional needle holder

INTRODUCTION

Hysterectomy is one of the most performed surgical procedures during lifetime. Almost 10% of women, who have had a hysterectomy because of prolapse symptoms, will visit a gynaecologist for a surgical correction of a vaginal vault prolapse thereafter. Surgical treatment should be offered to women with symptomatic PHVP after appropriate counselling as per RCOG guideline in 2015. A cochrane review comparing abdominal sacrocolpopexy to vaginal sacrospinous fixation considered the open abdominal procedure as the treatment of first choice for prolapse of the vaginal vault, although operation time and hospital stay is longer.1 The type of operation performed should be tailored to the individual patient’s circumstances.

Sacrocolpopexy (sacral colpopexy) is a surgical technique to repair pelvic organ prolapses. Specifically, it is intended to address apical or vaginal vault prolapse in women. The salient component of reconstruction is suspension of the apical portion of vagina (or the vaginal cuff in patients after hysterectomy) in a manner that recreates the natural anatomic support that the uterosacral and cardinal ligaments provide, usually by tacking it to the sacral promontory. Sacrospinous fixation (SSF) at the
time of vaginal hysterectomy should be considered when
the vault descends to the introitus during closure.2

Abdominal sacro colpopexy (ASC) is associated with
significantly lower rates of recurrent vault prolapse,
dyspareunia and postoperative stress urinary incontinence
(SUI) when compared with sacrospinous fixation (SSF).
However, this is not reflected in significantly lower
reoperation rates or higher patient satisfaction.3 SSF is
associated with earlier recovery compared with ASC.

SSF may not be appropriate in women with short vaginal
length and should be carefully considered in women with
pre-existing dyspareunia.2

Objectives

The objectives of current study were to assess the
 efficiency of conventional method of sacrocolpopexy and
to assess the follow up complaints of patients.

METHODS

Presented study is a retrospective study of post operative
patients was conducted in maternal and child health wing
of Sarojini Naidu medical college from June 2019 till
December 2019. Total 60 patients participated in the
study and data was collected from participants using a
structured questionnaire. Follow up was conducted at 6
weeks and 12 weeks.

The protocol and the effect of surgery were investigated
by reviewing and analyzing the clinical data of 60
recurrent patients (grade and above), who had received
the pelvic floor repair surgery from June 2019 to
December 2019.

The extent of uterine or vaginal prolapse was assessed by
gynaecological examination and POP quantification
system (POP-Q) for prolapse assessment.

Follow up questionnaire about quality of life (pelvic floor
distress inventory-short form 20 (PFDI-20) and pelvic
floor impact questionnaire short form (PFIQ-7) were used
to evaluate objective and subjective efficacy, respectively.3

Inclusion criteria

Inclusion criteria for current study were; symptomatic
uterine or vaginal vault prolapse patients with POP-Q
stage 2 and above, symptoms include a sensation of
pressure on the vagina and perineum, seeing and feeling
of a bulge/protusion in the distal vagina, chronic pelvic
pain, dyspareunia and other sexually related problems or
associated lower urinary tract symptoms including
urgency, frequency, urinary retention and incontinence.

Exclusion criteria

Inclusion criteria for current study were; patients having a
contraindication for surgery, pelvic inflammatory disease,
patients who had undergone pelvic radiotherapy, patients
with compromised immune status interfering with
recovery and patients who were lost after surgery for
follow-up.

The procedure was performed after informed consent
from the patient and is performed under anaesthesia using
conventional 16 inch needle holder and prolene 1.0 suture
for sacrospinous fixation as compared to Miya hook used
for sacropexy.

Statistical analysis

The SPSS version 22.0 software program was used for
statistical analysis.

RESULTS

Suggestive menstrual status of the patients who
participated in the study is depicted in (Table 1). There
were 43.3% pre menopausal patients and 56.6%
menopausal patients.

Table 1: Case distribution according to menstrual
status.

| Menstrual status   | N (%) |
|--------------------|-------|
| Pre menopausal     | 26 (43.3) |
| Post menopausal    | 34 (56.6) |

The parity of the patients involved in the study is
described in (Table 2). Maximum patients were
nulliparous i.e. para 2 (36.6%), followed by para 3
(25%) and para 1 (16.6%). Only 5 patients were
multiparous.

Table 2: Case distribution according to parity.

| Parity | N (%) |
|--------|-------|
| Nulliparous       | 5 (8.3) |
| 1     | 10 (16.6) |
| 2     | 22 (36.6) |
| 3     | 15 (25) |
| >3    | 8 (13.3) |

Various complaints of patients who underwent surgery is
described in (Figure 1). Maximum patients presented
with the complaint of pelvic organ prolapse i.e. 28 in
number followed by 22 patients with stress incontinence
and 10 with urinary retention. 8 patients had bowel
complaints like constipation and painful defecation. 17
patients had decreased sensation and loss of vaginal tone
whereas 20 patients had heaviness feeling in lower
abdomen.
Patients who were selected for surgery after POP quantification is described in (Figure 2). Maximum patient belong to stage 3 i.e. 40 followed by 10 patients of stage 4 and 10 of stage 2. No patient of stage 1 was selected for the surgery.

At 12 weeks the major complaint was pain in abdomen in 1.66% cases followed by urinary incontinence and bleeding per vagina in 3.33% and relapse of pelvic organ prolapse in 1.66% cases. Other contributing complaints were dyspareunia and constipation.

DISCUSSION

Abdominal sacrocolpopexy (ASC) is considered as excellent procedure in the surgical management of apical Prolapse. ASC has been superior to other techniques in terms of restoration of normal vaginal axis and maintenance of vaginal capacity. Sacrocolpopexy is a reliable procedure that effectively and consistently resolves vaginal vault prolapse.

In this study there were 43.3% pre menopausal patients and 53.6% menopausal patients. Maximum patients were multiparous i.e. para 2 (36.6%) followed by para 3 (25%), para 1 (16.6%). Only 5 patients were nulliparous.

Patients who were selected for surgery after POP quantification. Maximum patient belong to stage 3 i.e. 40 followed by 10 patients of stage 4 and 10 of stage 2. No patient of stage 1 was selected for the surgery.

Patients presented with the complaint of pelvic organ prolapse i.e. 28 in number followed by 22 patients with stress incontinence and 10 with urinary retention. 8 patients had bowel complaints like constipation and painful defecation. 17 patients had decreased sensation and loss of vaginal tone whereas 20 patients had heaviness feeling in lower abdomen.

The follow up complaints observed in patients post 6 weeks and 12 weeks of surgery. As observed after 6 weeks maximum patients had pain in abdomen i.e. 3.33% cases followed by complaint of dyspareunia (8.33%), pain during defecation (6.66%), urinary complaints like retention in 1.66% and incontinence in 3.33% cases. Relapse of pelvic organ prolapse was seen in 3.33% of the patients.

Table 3: Results of follow up visits at 6 weeks and 12 weeks post-surgery.

| Post surgery complaints | 6 weeks     | 12 weeks    |
|-------------------------|-------------|-------------|
| Pain in abdomen         | 2 (3.33%)   | 1 (1.6%)    |
| Bleeding per vagina     | 5 (8.33%)   | 2 (3.33%)   |
| Urinary incontinence    | 2 (3.33%)   | 2 (3.33%)   |
| Urinary retention       | 1 (1.66%)   | 0           |
| Constipation            | 2 (3.33%)   | 1 (1.66%)   |
| Painful Defecation      | 4 (6.66%)   | 1 (1.66%)   |
| Dyspareunia             | 5 (8.33%)   | 2 (3.33%)   |
| Pelvic organ prolapse   | 2 (3.33%)   | 1 (1.66%)   |

Authors found 100% success rate of sacropexy, similar results were obtained by Rani et al, Nygaard et al, in the review of 2178 patients reported a success rate of 78-100%. They reported 4.9% rate of stress urinary incontinence.

Weidner et al reported 2 cases of sacral osteomyelitis and hemorrhage from presacral veins had been reported in 1-2.6% patients. Higgs et al found 90% success rate with 3% recurrence rate on long term follow-up, 12% patient reported reduced vaginal capacity with dyspareunia and constipation.
subject satisfaction rate was 78%. In this study no major intraoperative and postoperative complications were encountered.7–9

Sacrocolpopexy is a cost effective and safe procedure with high anatomical cure and patient satisfaction rate and low intra-operative and postoperative complications as well as recurrence rates.

**Limitations**

The study included limited ability to assess the improvement in PFDI-20 and PFIQ-7 scores between the pre- and postoperative status. A randomized controlled trial might add more information regarding the current results. However in order to reduce the interobservation bias all the cases were evaluated and operated by the same team of surgeons and the follow up was also carried out by the same team.

**CONCLUSION**

Abdominal sacrocolpopexy is associated with a lower rate of recurrent vault prolapse and dyspareunia than the vaginal sacrospinous colpopexy. These benefits must be balanced against a longer operating time, longer time to return to activities of daily living and increased cost of the abdominal approach. The extent of recurrence, the recurrent site and complications must be carefully considered and evaluated for re-treatments of recurrence after pelvic floor repair surgery, and then an appropriately individualized re-treatment protocol could be designed for each of the patients. Sacrocolpopexy is a reliable procedure that effectively and consistently resolves vaginal vault prolapse and uterine prolapse with lower perioperative morbidity, shorter hospital stay and allows a long-term anatomical restoration. It provides excellent apical support with lower rate of recurrence.

**Funding:** No funding sources

**Conflict of interest:** None declared

**Ethical approval:** The study was approved by the Institutional Ethics Committee

**REFERENCES**

1. Coolen AWM, van Isselmuiden MN, van Oudheusden AMJ, Veen J, van Eijndhoven HWF, Mol BWJ, et al. Laparoscopic sacrocolpopexy versus vaginal sacrospinous fixation for vaginal vault prolapse, a randomized controlled trial: SALTO-2 trial, study protocol. Bio Med Cent Wom Heal. 2017;17(1):52.

2. Post hysterectomy vaginal vault prolapsed. Available at: https://www.rcog.org.uk/en/guidelines-research-services/guidelines/gtg46/. Accessed on 20 August 2020.

3. Barber MD, Walters MD, Bump RC. Short forms of two condition-specific quality-of-life questionnaires for women with pelvic floor disorders. Am J Obstet Gynecol. 2005;193:103-8.

4. Fan SX, Wang FM, Lin LS, Song YF. Re-treatments of recurrence after pelvic floor repair surgery. Zhonghua Fu Chan Ke Za Zhi. 2017;52(6):374-8.

5. Nygaard I, McCreery R, Brubaker L. For the pelvic Floor disorders network. Abdominal Sacrocolpopexy: a comprehensive Review. Obstet Gynecol. 2004;104:805-23.

6. Lane FE. Repair of posthysterectomy vaginal-vault prolapse. Obstet Gynecol. 1962;20:72-7.

7. Gruenberger W, Gruenberger V, Wieranni F. Pelvic promontory fixation of the vaginal vault in sixty-two patients with prolapse after hysterectomy. J Am Coll Surg. 1994;178:69-72.

8. Rani S, Pandher DK, Huria A, Mehra R. Clinical outcome of abdominal sacrocolpopexy. J Midlife Health. 2015;6(4):169-72.

9. Higgs PL, Chua HL, Smith ARB. Long term review of laparoscopic sacrocolpopexy. Bri J Obstet Gynaecol. 2005;112:1134-8.

**Cite this article as:** Rawat A, Garg R, Yadav P. Outcomes following abdominal sacrocolpopexy for pelvic organ prolapse. Int J Reprod Contracept Obstet Gynecol 2020;9:4970-3.