ORIGINAL ARTICLE

Long Term Followup Study for Sacrospinous Fixation Surgery

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Abstract

Pelvic organ prolapse is a common problem worldwide affecting parous women over 50 years of age with significant influence on quality of life. Sacrospinous fixation is a novel technique to treat patients of uterovaginal prolapse and vault prolapse. This study was conducted on the patients operated with sacrospinous fixation surgery for a period of 5 years from 2012 to 2017. Their intraoperative and postoperative findings were noted. These cases were followed up for 2-5 years after surgery to note the anatomical cure rate and patient satisfaction rate. There was low incidence of intraoperative and postoperative complications. The anatomical cure rate and patient satisfaction rate was both 92% with 8% incidence of failure of procedure. Thus, Sacrospinous surgery is a safe, simple and effective method especially for cases with uterovaginal prolapse along with posterior compartment defects and vault prolapse.

Key Words

Uterovaginal prolapse, Sacrospinous fixation.

Introduction

Pelvic organ prolapse means descent of female pelvic organs through vagina. It is a common problem worldwide affecting parous women over 50 years of age with significant influence on quality of life. Prolapse of the vagina can occur following a hysterectomy or can evolve with the uterus in place. Sacrospinous fixation is an operation to attach the top of the vagina or cervix to the pelvic ligament (sacrospinous ligament) with a stitch. The operation is primarily intended to treat prolapse of the uterus or the vault of the vagina (in hysterectomised patients). It can also help correct prolapse of the bladder or bowel to some extent if they are also present.This operation has the advantage of retaining an adequate length and width of the vaginal canal. It was introduced by Randall and Nichols in 1971. (1) This operation has alowperioperative morbidity and a recurrence rate of 5-15%. (2)

Material and Methods

This study was conducted in a tertiary care hospital at Jammu after taking ethical clearance from the ethical committee. It was an observational prospective study for the patients operated in ASCOMS hospital with sacrospinous fixation surgery for a period of 5 years from 2012 to 2017. A total of 25 patients had been operated in this period. All surgeries were performed by one surgeon. In this operation, the apex of vagina/vaginal vault is anchored to the sacrospinous ligament with stitches either unilaterally or bilaterally. The patients were evaluated before the surgery including demographic characteriestics, complaints and findings. All the intra operative and post operative findings were noted including operating time, blood loss, hospital stay and postoperative complications. The patients were again contacted after 2-5 years after surgery. A thorough examination was conducted in them. Presence of cystocoele, rectocele and vault prolapse was noted. A questionnaire was conducted about their quality of life including urinary symptoms like urgency, frequency and incomplete evacuation of bladder along with any sensation of vault prolapse and sexual dysfunction was enquired. The outcomes noted were anatomical cure and quality of life (urinary symptoms and sexual function).

Inclusion criteria:

1. Patients of pelvic organ prolapse with sensation of something coming out of vagina.

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2. Patients of cystocoele and/or rectocele/ enterocoele.
3. Patients of vault prolapse who had previously undergone hysterectomy.

Exclusion criteria:

1. Abnormal cervical smears.
2. Abnormal ultrasound findings of uterus and ovaries.
3. Patients who had undergone pelvic radiotherapy.
4. Patients with compromised immune status interfering with recovery.
5. Patients with other pelvic disorders like endometriosis, pelvic inflammatory disease etc
6. Patients who were lost after surgery for follow up.

Study Design:

Study Type : Observational prospective
Number of participants: 25
Follow-Up Duration: 2-5 Years
Study Start Date : October 21, 2012
Completion Date :August 2017

Operative procedure:

This procedure was performed under spinal anaesthesia with the patient placed lithotomy position. In case of intact uterus, first a vaginal hysterectomy was performed along with anterior colporaphy.

An incision made on the posterior vaginal wall upto the apex, enterocoele sac identified and separated from the posterior wall of vagina. The enterocoele defect closed with pursestrings sutures. The pararectal space was dissected on the left side and sacrospinous ligament identified. Rectum was displaced medially. Using a long handled needle holder, three to four absorbable sutures were placed under direct vision through the ligament with PDS 1 suture. The sutures were carried through the thickness of the vaginal wall at the apex.

Results

In our study, total of 25 patients were operated. 12 patients were of uterovaginal prolapse of third degree with enterocoele, 4 patients only of cystocoele and enterocoele with no uterovaginal prolapse, 1 patient with large rectocele with enterocoele and 8 patients with vault prolapse.

In our present study, the mean age of our patients was 52.92 yrs with the minimum age being 43 and maximum age being 70 years. 80% patients were post menopausal. The average BMI of the patients were 26.88 kg/m2 and average parity was 3.88. Only 3 patients had previous cesarean with vaginal delivery and the rest had all previous vaginal deliveries. *(Table 1-4)*

18 (72%) patients in the study presented with sensation of something coming out of vagina. 2 patients (8%) had urinary symptoms which included voiding difficulty and incomplete evacuation of bowel and bladder. 4 patients (16%) had incomplete evacuation of bowel. 5 patients (20%) complained of abdominal pain and backache. *(Table 5&6)*

Intra-operative difficulties during the procedure were difficulty in approaching pararectal space and dissecting it,especially in obese patients, and visualising and tying sutures on sacrospinous ligament. Such difficulties were encountered in 3 patients. This led to failure of procedure in 2 patients (8%). *(Table 7)* One patient had major blood loss of 400 ml which was eventually controlled using haemostatic sutures. The average blood loss was 232 ml. Average operating time was 81.08 minutes and average hospital stay was 4.96 days.

Among the postoperative complications, one patient (4%) had retention of urine requiring recatheterisation for seven days. Two patients (8%) had postoperative fever on post- op day 2&3 and they recovered by giving higher antibiotics. One patient (4%) had complaint of buttock and thigh pain. *(Table 8)*

On follow-up, 23 patients showed anatomical cure with no incidence of recurrence of cystocoele, rectocele or vault prolapse and maintenance of posterior vaginal length (PVL) and vaginal axis. Thus, the objective cure rate was 92% in our study. Among the symptoms, 2 patients with failure of procedure reported persistent bowel symptoms as incomplete evacuation of bowel. Thus, the subjective satisfaction rate was 92%. There was 8% incidence of failure of surgical procedure in our study.

Table 1. Age Wise Distribution of Cases

Age-group	Number	Percentage
<35 yrs0	0	
35-45 yrs	3	12
>45 yrs	22	88

Table 2. Distribution of Cases According to Menstrual Status of Women.

Menstrual status	Number	Percentage
Perimenopausal	5	20
Postmenopausal	20	80

Table 3. Parity Wise Distribution of Cases

Parity	Number	Percentage
1	0	0
2	2	8
3	11	44
4	6	24
5	3	12
6	1	4
7	1	4
8	1	4

Table 4. Distribution of Cases According to Routes of Delivery

Route of delivery	Number	Percentage
Only vaginal delivery	22	88
Only cesarean section	0	0
Vaginal and cesarean section	3	12

Table 5. Chief Complaints of Patients

Chief complaint	Number	Percentage
SCOPV	18	72
Urinary complaints	2	8
Bowel complaints	4	16
Abdominal pain	5	20

SCOPV- something coming out per vaginum

Table 6. Distribution of Cases According to Diagnosis

Diagnosis	Number	Percentage
Uterovaginal prolapse	12	48
Vault prolapse	4	16
Cystocoele with rectocoele/enterocoele	8	32
Large rectocele with enterocoele	1	4

Table 7. Intraoperative Complications

Intraoperative complications	Number	Percentage
Difficulty in accessing C-SSL	3	12
Haemorrage	1	4

Table 8. Postoperative Complications

Postoperative complications	Number	Percentage
Urinary retention	1	4
Fever	2	8
Buttock pain	1	4

Discussion

Sacrospinous fixation is a simple, safe and cost effective procedure for the treatment of posterior compartment defects and vault prolapse. Many studies have shown good long-term outcome and high degree of patient satisfaction rate.No major intraoperative and postoperative complications were encountered in our study except one patient (4%) with urinary retention requiring recatheterisation, two patients (8%) with postoperative fever and one patient (4%) with buttock and thigh pain. *(Table 9)* Vitale et al. in their study also reported low incidence of morbidities associated with sacrospinous fixation surgery, lower cost and shorter operating time even compared to laparoscopic sacrocolpopexy. (3) Also the learning curve for sacrospinous fixation was small and associated with favourable anatomical outcomes. (4,5)

In our study there was 92% incidence of anatomical cure and 8% incidence of failure of procedure was reported because of difficulty in dissecting pararectal space and recognising sacrospinous ligament in obese patients. In a study done by Beer and Kuhn the failure rate was reported to be 3-37%. (6) Failure rates were higher in anterior compartment defects and lowest in posterior and apical defects. Aigmueller et al. reported

Table 9. Postoperative Complications Comparison

Postoperative complications	Matli[8]	Cruik-shank[9]	Peng et al[10]	Present study
No. of patients	35	48	40	25
Urinary retention	1	0	4	1
Fever	5	4	7	2
Buttock pain	0	0	5	1
UTI	4	3	0	0
Wound infection	1	0	0	0
SUI	0	2	3	0
Haematoma	0	0	1	0
Death	0	0	0	

an incidence 29% of recurrence of cystocoele after the procedure. (7) They attributed this to the displacement of the vaginalleading to change in the dynamic architecture of the pelvic floorresulting in a disproportionate increase in pressure on theanterior compartment.

Our study showed an objective cure rate as well as subjective satisfaction rate of 92%. Similar results were shown by Aigmueller et al., who found a high rate of patient satisfaction both inregard to severity of prolapse symptoms and to globalimpression of improvement compared to the preoperativestate. (7)

Conclusion

To sum up, sacrospinous procedure is a simple, cost effective and safe procedure with a relatively short learning curve, high anatomical cure and patient satisfaction rate and low intra and post operative complications as well as recurrence rates. Nevertheless, further randomised trials are required to evaluate the effectiveness and safety of this procedure.

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