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COMPARISON OF INTRA AND POST OPERATIVE COMPLICATIONS, ANATOMICAL RESULTS AFTER UNILATERAL VERSUS BILATERAL SACROSPINOUS FIXATION FOR GENITAL PROLAPSE

Chandrashekar Murthy Y. M¹, Kiran A²

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ABSTRACT: Pelvic organ prolapse is the downward displacement of structures that are normally located at the level of or adjacent to the vaginal vault. After hysterectomy, for genital prolapse, apical suspension is a must to prevent the recurrence of prolapse. Various methods are available for apical suspension like Mc calls Culdoplasty, high uterosacral suspension, sacrospinous fixation and ilio coccygeous fascia suspension. sacrospinous fixation is the most preferred procedure because of its high success rate and less complications. Sacrospinous fixation can be done either unilaterally or bilaterally. Hence this study was conducted to compare the efficacy and safety of unilateral versus bilateral sacrospinous fixation.

KEYWORDS: Genital prolapse, sacrospinous fixation , complications , anatomical results and sexual function.

INTRODUCTION: Genital prolapse affects 30% of middle aged women and is becoming a major public health concern.^{1,2,3} The risk of requiring surgery for genital prolapse can reach 11% by 80 years of age.⁴ Several authors have reported the long term and short term anatomical results^{5,6} complications, recurrence rate, quality of life, sexuality^{5,6} after unilateral and bilateral sacrospinous ligament fixation individually but no study is done comparing the both. The aim of this study is to compare intra and post-operative complications, anatomical results, functional results and sexuality between unilateral versus bilateral sacrospinous fixation.

MATERIALS AND METHODS: This is a prospective longitudinal study from November 2009 to October 2010, all women referred to OBG Dept. ESI PGIMSR, Bangalore with stage IV pelvic organ prolapse and vault prolapse.

The pre-operative physical examination was performed in the supine position with valsalva maneuver. Genital prolapse was graded according to pelvic organ prolapse quantification classification (POP-Q)

The population study consisted of 20 women. Sixteen women were with stage IV Pelvic organ prolapse and 4 were vault prolapse. Mean age standard deviation (SD) was 55 +/- 10 years of stage IV Pelvic organ prolapse and 60 +/- 5 for vault prolapse. Body mass index was 25 +/- 4, and the median parity was 3.

All women received antibacterial chemoprophylaxis with (Taxim 1 gms intra venously) at the beginning of the surgery. All procedures were performed under spinal anesthesia in lithotomy position. In brief sacrospinous ligament fixation was performed as follows. Pararectal dissection was

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performed, window was created through rectal pillars and sacrospinous ligament identified. A bite was taken with non-absorbable sutures (prolene one 0) through sacrospinous ligament on right side in unilateral sacrospinous fixation and through both sacrospinous ligaments in bilateral sacro spinous ligament fixation. In case of stage IV pelvic organ prolapse, sacro spinous fixation is done after performing hysterectomy.

The patients were observed in post-operative ward and discharged on 7th post-operative day, after doing Pelvic organ quantification according to POP-Q classification after conforming fit for discharge. Later patients were asked to come for follow up after 6 weeks and after 6 months and they were assessed in terms of anatomical results, recurrence of prolapse and improvement or worsening of symptoms.

Statistical analysis was performed by using student's t – test, ANOVA test and Chi square test as appropriate for categorical variables. $P < 0.05$ was considered statistically significant.

RESULTS:

- 1) **Intra and post-operative complications:** The mean operative time was 75 ± 15 min for unilateral sacrospinous fixation and 105 ± 15 min for bilateral sacrospinous fixation. The overall complication rate was 20%. Intra operative complications consisted of one rectal injury among bilateral SSF group, three women had post-operative complications, one among unilateral SSF had fever which was considered significant only after checking temperature two times six hours apart of > 38 degree C. One case had urinary retention after removing catheter on 3rd post-operative day, this complication was resolved after 4 more days of catheterisation among bilateral SSF group and one case had buttock pain which was treated with diclofenac 50 mg among bilateral group.
- 2) **Anatomical results:** 10 patients were followed 6 wk and 6 months after the surgery, 8 cases were followed and examined at 6th week but they did not come for 6 month follow up, other two cases did not come for 6 weeks follow up also. All the 10 women who had come for both 6weeks and 6 months follow up had no recurrence among both unilateral and bilateral SSF group.

	Preop state	Improvement	No change	Worsening of symptoms	P value
Constipation					
Present	4	4	0	0	<0.05
Absent	0	0	6	0	
Digital manoeuvres					
Present	3	3	0	0	<0.05
Absent	7	0	7	0	
Difficulty in Defecation					
Present	3	3	0	0	<0.05
Absent	7	0	7	0	
Sexual discomfort					
Present Absent (4 women not practicing)	6	6	0	0	<0.05
Functional out come after unilateral SSF					

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	Pre-operative state	improvement	No change	Worsening of symptoms	P value
Constipation					
Present	3	3	0	0	<0.05
Absent	7	0	7	0	
Digital manoeuvres					
Present	3	3	0	0	<0.05
Absent	7	0	7	0	
Difficulty in Defecation					
Present	4	4	0	0	<0.05
Absent	6	0	6	0	
Sexual discomfort	4				<0.05
Present	6 (women		0	0	
Absent	not practising)	4	6	0	
Functional out come after bilateral SSF					

COMMENTS: This study shows comparison of intra and post-operative complications, anatomical results, functional outcome and sexuality between unilateral versus bilateral sacrospinous ligament for genital prolapse.

The overall complication rate was relatively high among bilateral sacrospinous ligament fixation (15%) compared to unilateral SSF (5%).

Anatomical outcome that is recurrence of genital prolapsed is statistically comparable in both the groups.

Functional outcome is shown in table 1 and 2, both values are statistically significant and both are comparable.

CONCLUSION: Our study supports the feasibility of unilateral SSLF, with less intra and post-operative complication rates in comparison to bilateral SSLF. In our study anatomical and functional results were same in both groups, however because ours is the small study large scale prospective studies are now required to compare unilateral and bilateral SSLF.

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Fig. showing bite taken through sacrospinous ligament on right side with No. one-zero prolene

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AUTHORS:

1. Chandrashekar Murthy Y. M.
2. Kiran A.

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of OBG, ESIC MC PGIMSR, Bangalore.
2. Assistant Professor, Department of OBG, ESIC MC PGIMSR, Bangalore.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Chandrashekar Murthy Y. M,
4/173/2, 2nd Main,
Bovipalya, Mahalakshmi Puram,
Bangalore-560086.
Email: drchandruym@gmail.com

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