

# Modified Pelvic Floor Repair in Prolapsed Uterus, with Total Prevention of Vault Prolapse

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## ABSTRACT

In and around Ammapettai, a rural area with an economically backward community, 515 cases were operated for prolapsed uteri, by doing modified pelvic floor repairs (Dr. Sunthantradevi's method), without any incidence of vault prolapse, with patients being followed up for two years after their surgeries.

**Keywords:** Prolapsed uterus, Pelvic floor repair, Vault prolapse

## INTRODUCTION

Gynaecological problems, particularly prolapse of uterus, in women of a rural and economically backward community, was taken into account. Surgery was chosen as the definite line of treatment. The diagnosed cases included postmenopausal women-80% and those who were in post child bearing period-20%.

## AIM

To study the incidence of prolapse in different age groups, parity, degree of prolapse, working pattern, duration and medical complications.

To prevent the descent of vault of the vagina in the post vaginal hysterectomy patients by new surgical method.

## MATERIALS AND METHODS

A total number of 748 patients who belonged to the rural population which resided in and around Ammapettai, Kancheepuram district, underwent different gynaecological surgeries within three years (from 2009 to 2012). Out of these, 515 patients with prolapsed uteri were selected. Surgery which was done was vaginal hysterectomy, with anterior colporrhaphy and colpoperiniorrhaphy.

In order to achieve complete surgical reconstructions in pelvic floor disorders, followed by routine vaginal hysterectomy, a new method which was called MODIFIED PELVIC FLOOR REPAIR, which was introduced by Dr. SUTHANTHIRADEVI, is being practised in patients who undergo vaginal hysterectomies.

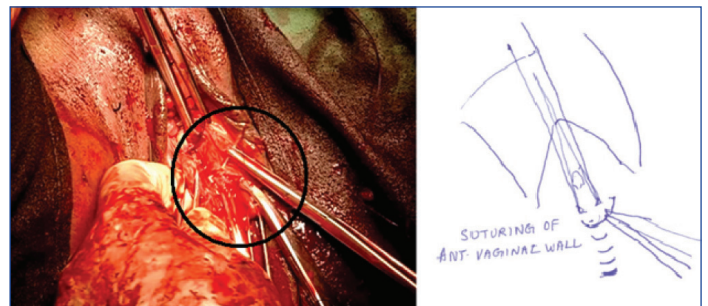
After the removal of the uterus by routine vaginal hysterectomy, peritoneum is closed by extra peritonization of the pedicles by using purse string suture. Subsequently, anterior colporrhaphy is done by Kelly's method. Routinely, the vault is closed in the transverse position after doing Kelly's procedure and then, a pelvic floor repair is done. In this modified step, anterior colporrhaphy is done without closing the vault and it is stopped in the middle. Routine pelvic floor repair is done with approximation of levator ani and closure of the pelvic floor apex is continued upwards to middle portion, where the anterior colporrhaphy is stopped in a vertical manner. This was done in 515 patients and patients were followed up for two- three years after their surgeries.

## Technique which was Involved

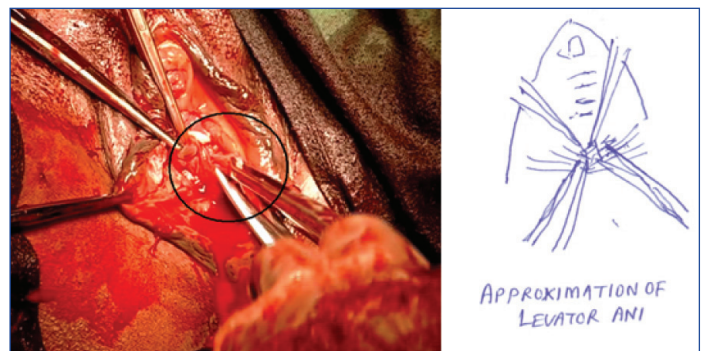
- Anterior wall closure done vertically – and vault done transversely with PFR was the routine method which had been adapted so far. A defect which occurred in this method was pericervical

tissue laceration and apical gaping in the vault area, which caused a post-operative vault prolapse. Modification which was done here was stoppage of anterior wall closure [Table/Fig-1].

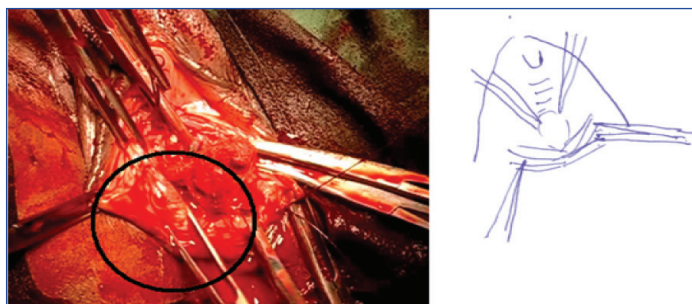
- Next PFR was started [Table/Fig-2] as usual, but extensive dissection of ischiorectal fossa was not done – which produced a big defect laterally.
- Tying the levator [Table/Fig-3], approximated together by using H shaped suture - gave more strength at the posterior vaginal wall [Table/Fig-2].
- The excess vaginal wall was excised posteriorly.
- The stay suture which was left in the anterior vaginal wall was lifted up. There was a canulated conical defect. If this defect is not identified and closed properly, it will definitely cause vault prolapse.
- The same was sutured and the defect was obliterated – this is an important step in this surgery.



**[Table/Fig-1]:** Anterior vaginal colporrhaphy proceeded. It is stopped at the level of cervical region



**[Table/Fig-2]:** PFR started and levator ani approximated together by H-shaped structure to give more strength at the posterior vaginal wall



[Table/Fig-3]: Leviator ani is tied



[Table/Fig-4]: I & II continued so that the pericervical tissue are included and the space is obliterated the suture is continued with the Anterior colporaphy as a vertical suture

- Connecting the anterior vaginal wall, with posterior up to apex of the pelvic floor in vertical manner, will obliterate pericervical area and prevent pericervical tissue gap and weakness, thereby preventing vault prolapse [Table/Fig-4].
- All the particulars of the patients after surgery regular follow ups were carried out for three years. Complications were also tabulated with 100% success, as far as the prevention of vault prolapse was considered.

### OBSERVATIONS

Seven hundred and forty eight patients underwent different gynaecological surgeries. They have been listed in [Table/Fig-5].

S. No	Diagnosis	No of cases
1	Prolapse Uterus	515
2	Fibroid Uterus	84
3	DUB	97
4	Adenomyosis	21
5	Pyometra	1
6	Endometrial Cancer	1
7	Endometriosis	5
8	Ovarian Problems	12
9	Recanalisation	12
	Total	748

[Table/Fig-5]: Indication for surgeries were given

Prolapsed uteri were common in age group of 56-65 years [Table/Fig-6].

Age group	No of cases
30-40 yrs	35
41-50 yrs	75
51-55 yrs	115
56-65 yrs	180
66-75 yrs	100
76-80yrs	08
Total	513

[Table/Fig-6]: Age wise particulars for female with prolapse

Remaining two cases had vault prolapse among a total of 515 cases.

Prolapsed uteri were commonly observed in females who were Para 3 [Table/Fig-7].

Para	No of cases
Para 2	35
Para 3	305
Para 4 and more	175
Total no of cases	515

[Table/Fig-7]: Parity and prolapse

A majority of patients who underwent surgeries for prolapse had 3<sup>rd</sup> degree uterine prolapses with cystoceles and rectoceles [Table/Fig-8].

Degree of prolapse	No of cases
procententia	70
3 <sup>rd</sup> degree cystocele and rectocele	315
2 <sup>nd</sup> degree cystocele and rectocele	110
1 <sup>st</sup> degree with big cystocele and rectocele	20
Total cases	515

[Table/Fig-8]: Degree of Prolapse in the group

Most of the patients who had undergone vaginal hysterectomies for prolapses were anaemic [Table/Fig-9].

Medical complications	No of cases
Diabetes Mellitus	30
Hypertension	25
Anaemia	245
Uncomplicated	215
Total	515

[Table/Fig-9]: Medical complication in the group

Working pattern	No of cases
a. Field workers. - Heavy weight lifting - Hard field work	90%
b. House hold of work	10%
Total	100%

[Table/Fig-10]: Working pattern of the case group

A majority of patients who had prolapses were field workers [Table/Fig-10].

### Menopausal status

Most of the patients who had prolapses were post menopausal (480 out of 515 cases) and the durations of the prolapses have been shown in [Table/Fig-11].

Duration	Percentage
10- 15 yrs	14%
6 - 10 yrs	22%
Less than 5 yrs	74%

[Table/Fig-11]: Duration of prolapse

Problems	Percentage
Urinary problem	90%
Bowel problem (constipation)	5%
Difficulty in walking	60%
General discomfort	100%

[Table/Fig-12]: Complications due to prolapsed

Previous surgeries	No of cases
Previous LSCS	10%
Sterilization done	20%
Not sterilized	70%
Total	100%

[Table/Fig-13]: Previous surgical status in the group

Some of these patients had undergone some surgeries earlier. Most of the patients who had prolapses had not been sterilized [Table/Fig-12,13].

### Type of Anaesthesia which was Given

Spinal anaesthesia was given to all 515 patients. Durations of the surgeries have been given in [Table/Fig-14] and the post-operative complications have been enumerated in [Table/Fig-15].

Duration	No of cases
< 1 hr	375
1-1 1/2hr	80
2 hr	60
Total	515

[Table/Fig-14]: Duration of surgery

Post-operative complication	No of cases
UTI	3
Kinking of the ureter	4
Insensitive bladder	1
Bladder injury (during surgery)	2

[Table/Fig-15]: Post-operative complications

## DISCUSSION

Mc Call's [1] culdoplasty involves the uteroscaral ligaments in the vault and posterior vaginal wall repair, though it had marked an improvement in the present procedure. Vault prolapse had not occurred in any of the cases. Zimmerman [2] had used a mesh to repair the vault. Lemack et al., [3] had used levator ani to prevent vault prolapse and it was also used by the present author, but in a modified way, to achieve best results [4].

## CONCLUSION

Post menopausal and multi parous women who do hard field work and anaemic patients develop prolapsed uteri more than other women.

This article was presented to reveal the common occurrences seen in women in this area that had a high incidence of prolapsed uteri (it was more or less like an endemic problem in this place, in and around Shri Sathya Sai Medical College and Research Institute), India.

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