

# **Uterine Suspension by Rectus Sheath Flap, in Selected Cases of U.V. Prolapse**

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## **ABSTRACT**

**Objective:** To study the effectiveness of rectus sheath flap in the management of pelvic organ prolapse.

**Study design:** Prospective interventional study

**Place and duration of study:** The study was conducted at the department of Obstetrics & Gynaecology, Lady Willingdon Hospital from January 2000 to December 2010.

**Patients & methods:** 150 Patients having nulliparous prolapse with future fertility concerns were selected from the out patients department of Lady Willingdon Hospital. Various symptoms assessed before and after surgery were pelvic pain, urinary symptoms, low back ache, dyspareunia, feeling of something coming out of vagina and infertility.

**Results:** There was marked improvement in the symptoms fertility improved and there was no recurrence of prolapse at 5 years of follow up giving a patient satisfaction rate of 100%.

**Conclusion:** Uterine Suspension (Hysteropexy) by using a flap of rectus sheath is a very effective method for the management of U.V prolapse.

**Keywords:** Prolapse, rectus sheath, hysteropexy..

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## **INTRODUCTION**

Pelvic organ prolapse is defined as herniation of one of the pelvic organs (uterus, vaginal apex, bladder, rectum) from their normal anatomical position into or beyond the vagina. It is a common concern for women and their physicians. About -10% of women who reach 80 years of age have surgical intervention for prolapse<sup>1</sup>.

Normal suspension of uterus is dependent on an interdependent system of bony, muscular & Connective tissue elements. Congenital weakness of the endopelvic fascia & nervous tissue reflects itself in the form of nulliparous prolapse. Whereas obstetrical causes include mismanagement of second stage of labour and oversized babies. Post menopausal atrophy of the pelvic organs occurs because of hormonal withdrawal & support<sup>2</sup>. There are three levels of support of the pelvic organs.

The level 1 or apical support is provided by uterosacral & cardinal ligament complex whereas the level II or mid vaginal support is provided via the endopelvic fascia and its lateral insertion into the pelvic side wall<sup>3,4</sup>.

Level- III or distal vaginal support is provided by endopelvic fascia anteriorly and perineal body posteriorly. Up till now various vaginal and abdominal procedures have been designed to treat uterovaginal prolapse .Example of such procedures is Manchester

repair, sacrospinous hysteropexy<sup>5,6</sup> etc. but there are merits & demerits of each procedure. Surgical sophistication has increased and anatomically distorting operations have been replaced by anatomy restoring procedures<sup>7,8</sup>. Uterine suspension procedure by using a flap of rectus sheath for uterovaginal prolapse is an optimum treatment for patients requesting for conservation of uterus. It not only restores the anatomical position of the uterus, but also strengthens the supports<sup>9</sup>.

## **MATERIAL & METHODS**

A prospective interventional study was carried out at the department of Obstetrics & Gynaecology, Lady Willingdon hospital from Jan 2000 to Dec 2010. One hundred and fifty patients with uterovaginal prolapse irrespective of the degree of prolapse, having fertility concerns requiring conservation of uterus and post hysterectomy vault prolapse were selected. Patients included nulliparous, multiparous women desirous of more children, post hysterectomy vault prolapse, second degree prolapse 62%, third degree prolapse 25% and vault prolapse 13%

### **Associated symptoms:**

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|---------------------|-----|
| 1. Infertility      | 20% |
| 2. Urinary symptoms |     |
| Stress incontinence | 18% |
| Urge incontinence   | 10% |

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| 3. Chronic pelvic pain                             | 48% |
| 4. Dyspareunia                                     | 52% |
| 5. Vaginal swelling something coming one of vagina |     |
|  | 95% |

**Procedure:** Abdomen is opened by pfannenstiel incision, rectus sheath is exposed. A strip of rectus sheath about 1.5cm broad is dissected out transversely with its lateral ends remaining attached. The peritoneal cavity is opened up and uterus lifted up in the wound. The uterovesical pouch is opened up and a long curved clamp is passed through an avascular window in the broad ligament, underneath the round ligament from within outwards through the abdominal wound and taken out at the lateral edge of rectus abdominis muscle bilaterally. The newly constructed flap of rectus sheath is then grasped with the clamp taken towards the anterior surface of uterus at the level of internal as using a delayed absorbable suture polyglactin round body No.1. The same procedure is repeated on the other side.

In the next step coaptation and plication of uterosacral ligaments is carried out and last of all plication of round ligaments is done. After the procedure uterus is seen lifted up from its prolapsed position maintaining its anteversion.

## RESULTS

**Peroperative / immediate post operative:** There was no risk of injury to the bowel and bladder. Surgery was uneventful. Apart from increased demand for analgesia postoperatively the recovery was no different from vaginal hysterectomy. Average hospital stay was the same as compared to other postoperative patients.

### Long term follow up:

- There was not a single case of recurrence after one year and patient satisfaction was 100%
- 75% of patients who presented with infertility conceived within one year.
- Symptoms of chronic pelvic pain and deep dyspareunia also improved.
- The only noticeable side effect of this procedure was development of adhesions between the anterior uterine wall & abdominal wall which were noticed at the time of repeat caesarean section.

## CONCLUSION

- Uterine suspension by using rectus sheath flap is a good option for patients who require conservation of fertility.
- There is no interference with the physiologic functioning of cervix.
- Recurrence rate is extremely low.
- The sling used for uterine suspension is part of the body tissue, so no chance of erosion or foreign body reaction.
- No risk of damage to the other pelvic viscera

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