

# Uterine Preservation During Surgery For Uterovaginal Prolapse

Presented by:

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Hysterectomy is done almost routinely at the beginning of all surgical repairs for uterine and uterovaginal prolapse. Often, uterine preservation in women with uterovaginal prolapse is only considered if future fertility is desired. However, there has been a recent questioning of this practice in the United States, especially because gynecologists (and patients) in many other countries do not routinely prefer or perform hysterectomies in prolapse repairs. More women are requesting uterine preservation for many other reasons, including issues of sexuality, body image, and personal and cultural preferences.

Vaginal, abdominal, and laparoscopic techniques for hysteropexy have all been described, although many questions related to hysteropexy remain unanswered. A review on this topic by Gutman and Maher (2013) concluded that uterine preservation during surgery for uterovaginal prolapse may be an option in appropriately selected women who desire it, although prospective randomized trials are needed to corroborate this. Studies have reported reassuring but preliminary results with laparoscopic suture and mesh hysteropexy, sutured sacrospinous hysteropexy, and trans-vaginal mesh hysteropexy. Most procedures that aim to suspend the vaginal apex can be done with or without hysterectomy, although some important technical modifications are sometimes necessary. Note that there are considerably more observational and randomized trial data detailing the safety and efficacy of hysterectomy at the time of uterine prolapse repair than there are data for hysteropexy.

Although the risk of unanticipated pathology in asymptomatic women with prolapse is very low (Frick et al 2010), uterine-sparing procedures are not appropriate for women with a history of cervical dysplasia, abnormal uterine bleeding, postmenopausal bleeding, or those who are at high risk for uterine malignancy. Patients should be counseled that evaluation and management of these problems may be more difficult after uterine-sparing prolapse repairs.

The following recently published and important articles shed light on patient preferences regarding their uterus, and on the feasibility, safety, and potential risks and benefits of hysteropexy or hysterectomy in normal-risk women with uterine prolapse who desire surgical repair.

**1 Korbly NB, Kassis NC, Good MM, et al. Patient preferences for uterine preservation and hysterectomy in women with pelvic organ prolapse. Am J Obstet Gynecol 2013; 209:470.e1-6.**

2 This U.S. multicenter study evaluated patient preferences for uterine preservation vs. hysterectomy in women with prolapse symptoms who were being evaluated for initial urogynecological evaluation. Two hundred thirteen women completed special questionnaires about their preferences. Assuming outcomes were equal between hysterectomy and uterine preservation, 36% of the women preferred uterine preservation; 20% of the women preferred hysterectomy; and 44% of the women has no strong preference. If uterine preservation was superior, 46% of the women preferred uterine preservation, and 11% of the women preferred hysterectomy. If hysterectomy was superior, 21% of the women still preferred uterine preservation, despite inferior efficacy. Women from the Southern U.S. tended to prefer hysterectomy; women with some college education and those who believed that the uterus is important to their sense of self were more likely to prefer uterine preservation.

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4 **Frick AC, Barber MD, Paraiso MF, Ridgeway B, Jelovsek JE, Walters MD. Attitudes toward hysterectomy in women undergoing evaluation for uterovaginal prolapse. Female Pelvic Med Reconstr Surg 2013; 19:103-109.**

5 To investigate attitudes toward hysterectomy in U.S. women seeking care for pelvic organ prolapse, 220 women referred for evaluation of prolapse without evidence of previous hysterectomy were surveyed with the Pelvic Organ Prolapse Distress Inventory; the Control Preferences Scale; and questions regarding patients' perception of the impact of hysterectomy on health, social life, and emotional well-being. Additional items presented hypothetical scenarios. One hundred women with an intact uterus responded. Sixty percent indicated that they would decline hysterectomy if presented with an equally efficacious alternative to a hysterectomy-based prolapse repair. The doctor's opinion, risk of surgical complications, and risk of malignancy were the most important factors in surgical decision making. Many women with prolapse prefer to retain their uterus at the time of surgery in the absence of a substantial benefit to hysterectomy. These findings should provide further impetus to investigate the efficacy of uterine-sparing procedures to help women make informed decisions regarding prolapse surgery.

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7 **Frick AC, Walters MD, Larkin KS, Barber MD. Risk of unanticipated abnormal gynecologic pathology at the time of hysterectomy for uterovaginal prolapse. Am J Obstet Gynecol 2010; 202:507.e1-4.**

8 To assess the risk of unanticipated abnormal gynecologic pathology at the time of reconstructive pelvic surgery, the authors performed a retrospective analysis of pathology findings at hysterectomy with reconstructive pelvic surgery over a 3.5-year period. Seventeen of 644 patients (2.6%) had unanticipated premalignant or malignant uterine pathology. Two (0.3%) had endometrial carcinoma. All cases of unanticipated disease were identified in postmenopausal women. Premenopausal women with uterovaginal prolapse and normal bleeding patterns or with negative evaluation for abnormal uterine bleeding have a minimal risk of abnormal gynecologic pathology. In

postmenopausal women without bleeding, the risk of unanticipated uterine pathology is 2.6% but may be reduced by preoperative endometrial evaluation. However, in women with a history of postmenopausal bleeding, even with a negative endometrial evaluation, the authors do not recommend uterine preservation at the time of prolapse surgery.

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10 **Dietz V, van der Vaart CH, van der Graaf Y, Heintz P, Schraffordt Koops SE. One-year follow-up after sacrospinous hysteropexy and vaginal hysterectomy for uterine descent: a randomized study. Int Urogynecol J 2010; 21:209-216.**

11 This is a randomized surgical trial from The Netherlands in which 66 women with Stage II – IV uterovaginal prolapse were randomized to vaginal hysterectomy + uterosacral ligament colpopexy (using absorbable Vicryl sutures at the apex; N = 31) or right sacrospinous hysteropexy (using 2 non-absorbable Prolene sutures; N = 35). Surgical complications were similar between groups and there was one distal ureteral occlusion in the hysterectomy group requiring a nephrostomy catheter. Days in hospital and return to work were shorter in the hysteropexy group. At 12 months after surgery, vaginal length was a little longer in the hysteropexy group (average 8.8 cm vs. 7.3 cm), but 21% of hysteropexy patients had recurrent Stage II or greater prolapse versus only 3% in the hysterectomy group (P = .01). Quality of life measures and urogenital symptoms were similar between groups. Women with Stage IV prolapse pre-operatively were more likely to have a surgical failure after hysteropexy.

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13 **Gutman R, Maher C. Uterine-preserving POP surgery. Int Urogynecol J 2013; 24:1803-1813.**

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15 This is an extensive review of surgical issues of uterine preservation in women with uterine prolapse. In summary, a wide variety of surgical options remain for women presenting with uterine prolapse:

- Uterine preservation is a suitable option in women with uterine prolapse without contraindications to uterine preservation. However, long-term data are limited and the need for subsequent hysterectomy unknown (grade C).
- Sacrospinous hysteropexy is as effective as vaginal hysterectomy and repair in retrospective comparative studies and in a meta-analysis with reduced operating time, blood loss and recovery time. However, in a single RCT there was a higher recurrence rate associated with sacrospinous hysteropexy than with vaginal hysterectomy (grade D). Severe prolapse (stage III or IV) may increase the risk of recurrent uterine prolapse after sacrospinous hysteropexy.
- In consistent level 2 evidence sacrospinous hysteropexy with mesh augmentation of the anterior compartment was as effective as hysterectomy and mesh augmentation with no significant difference in the rate of mesh exposure between the groups (grade B).

- Level 1 evidence from a single RCT suggests that vaginal hysterectomy and uterosacral suspension were superior to sacral hysteropexy based on reoperation rates, despite similar anatomical and symptomatic improvement (grade C).
- Consistent level 2 and 3 evidence suggests that sacral hysteropexy (open or laparoscopic) was as effective as sacral colpopexy and hysterectomy in anatomical outcomes; however, the sacral colpopexy and hysterectomy were associated with a five times higher rate of mesh exposure than with sacral hysteropexy (grade B).
- A meta-analysis of hysterectomy at the time of sacral colpopexy compared with sacral colpopexy without hysterectomy was associated with a four times higher risk of mesh exposure (grade B).
- Abdominal sacral hysteropexy and hysterectomy with sacral colpopexy have better anatomical outcomes than abdominal hysterectomy with uterosacral suspension in a single retrospective comparison (grade C).

## Summary and Recommendations

Reasons to preserve the uterus at prolapse surgery include:

- Retention of fertility and its potential
- Patient preference and sociocultural factors
- Preservation of body image, sexuality, sense of self
- Faster less-morbid surgery
- Fewer mesh erosions if mesh used
- Surgeon preference and experience

Reasons to preserve the uterus at prolapse surgery include:

- Surgeon habit, preference, convention, experience
- Uterine and cervical cancer prophylaxis and lowering the risk of some tubal and ovarian cancers
- Eliminate unpleasant uterine symptoms (pain, bleeding) if present
- Remove need for future uterine surgeries for cervical and uterine disease
- Better outcomes at colpopexy for Stage III-IV prolapse
- Eliminate risk of future pregnancy, if premenopausal

We recommend that the surgeon and patient review these issues for and against hysterectomy, and discuss the potential surgical benefits and risks of removal of the uterus during the prolapse surgery. This discussion should be as balanced and unbiased as possible, and patients should be given time to express concerns or ask questions about diverse topics such as fertility, body image, sexuality, and cancer prophylaxis.

A significant number of women would choose uterine-conserving surgery if it was offered. Important factors in making this decision are the patient's feelings, surgeon's opinion, efficacy and surgical risks of the various surgical options, and the risk of cancer.

Uterine-sparing procedures are not appropriate for women with a history of cervical dysplasia, abnormal uterine bleeding, postmenopausal bleeding, or those who are at high risk for uterine malignancy. There is no consensus regarding pre-operative screening for uterine and pelvic disease; at the minimum, the patient should be non-pregnant and have a recent normal Pap test.

Sacrospinous hysteropexy is probably as effective as vaginal hysterectomy and apical suspension but with reduced operating time, blood loss and recovery time. Based on a single RCT, severe prolapse (stage III or IV) may increase the risk of recurrent uterine prolapse after sutured sacrospinous hysteropexy, compared to hysterectomy and repair. Some transvaginal mesh hysteropexy procedures appear to be effective in preliminary reports, but await further research.

Sacral hysteropexy with mesh (open or laparoscopic) is probably as effective as sacral colpopexy and hysterectomy in anatomic outcomes. Hysterectomy at the time of sacral colpopexy compared with sacral colpopexy without hysterectomy is associated with a four times higher risk of mesh exposure. Some surgeons recommend supracervical hysterectomy at sacral colpopexy to help lower the rate of future mesh exposure in these patients.

Further long-term studies are needed to determine the efficacy and safety of uterine preservation versus hysterectomy in various patient sub-groups, such as younger or very elderly women undergoing surgery for pelvic organ prolapse.

Few studies have addressed fertility and pregnancy outcomes after hysteropexy, including the effects of surgical techniques (sutured or mesh variations) on future pregnancy. Likewise, the effects of future deliveries on the efficacy of the hysteropexy procedure are largely unknown.