

# Hysteropexy in the treatment of uterine prolapse

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**VALORISATION ADDENDUM**

### WHY IS THIS THESIS RELEVANT?

Traditionally, uterine prolapse is treated by vaginal hysterectomy and suspension of the vaginal vault. However, nowadays more women express a preference for uterus preservation and consequently, hysteropexy techniques are gaining interest. Several procedures have been described to suspend the uterus, including the vaginal or the abdominal (laparoscopic/robotic) route. Although the different techniques for hysteropexy have been studied for many years, no randomised controlled trials have been performed to compare these techniques. As a result, it is unclear whether or not these uterine suspension procedures have comparable anatomical and functional outcomes. This thesis focuses on the effectiveness of laparoscopic hysteropexy compared to vaginal hysteropexy. Furthermore, variation in treatment of pelvic organ prolapse (POP) is assessed.

### RELEVANCE

POP is one of the most common gynaecological conditions. The aetiology of POP is multifactorial. Risk factors include higher parity, vaginal childbirth, advancing age, obesity and previous hysterectomy.

Although POP is not a life-threatening condition, it significantly affects a woman's quality of life and may influence urinary, gastrointestinal, sexual and psychological functioning. The lifetime risk of undergoing surgery for POP or stress urinary incontinence is estimated to be 20% by the age of 80 years. In the Netherlands, about 13.000 POP surgeries are performed every year, with estimated total costs of 75 million euro per year. Due to aging of the population, a significant increase in both the number of women with POP and those seeking care for POP is expected to occur over the next decades. As a result, there will be an enormous extra demand for future prolapse treatment.

### PRACTICE PATTERN VARIATION

In the Netherlands, a great variation was found in the treatment of POP. The surgical rate of POP and urinary incontinence (UI) varies per hospital and per region. Consequently, a woman's odd of undergoing surgery for POP seems to depend more on where she lives than on the clinical circumstances.

Practice pattern variation in the ratio between conservative and surgical treatment of POP might imply over- and undertreatment. In case of undertreatment, the patient might not receive adequate treatment. However, in case of overtreatment the patient is exposed to the unnecessary risks of surgery. Since a gold standard for treating POP

is still a matter of debate, the main question arises what the optimal ratio is between conservative and surgical treatment management.

To reduce practice pattern variation, well-designed prospective studies are necessary to establish evidence based guidelines.

### HYSTEROPEXY

Vaginal sacrospinous hysteropexy is the most studied surgical technique for uterine descent in the Netherlands and the procedure is very popular among Dutch gynaecologists. However, there are some concerns about this technique. After vaginal sacrospinous hysteropexy, the vaginal axis is changed to a more horizontal and posterior position. Furthermore, the high risk of anterior vaginal wall prolapse after this technique is often discussed. Abdominal or laparoscopic uterine suspension might not have these disadvantages. In case of vaginal vault prolapse, abdominal sacrocolpopexy has been shown to have a lower rate of recurrent apical prolapse and a lower reoperation rate as compared to vaginal sacrospinous fixation of the vaginal vault.

In our randomised controlled study (LAVA-trial) we compared laparoscopic sacrohysteropexy with vaginal sacrospinous hysteropexy in women with uterine descent POP-Q stage 2 or higher. To our knowledge, this is the first randomised controlled trial comparing these two techniques for hysteropexy. The study demonstrated non-inferiority of laparoscopic sacrohysteropexy as compared to vaginal sacrospinous hysteropexy for surgical failure in the apical compartment. Furthermore, no differences were found in anatomical and surgical failure in other compartments, neither in sexual functioning and quality of life. However, we found some differences in secondary outcomes. Following laparoscopic sacrohysteropexy, bothersome symptoms of overactive bladder and faecal incontinence were reported more frequently, but dyspareunia was reported less frequent. These subtle differences in secondary outcomes may help in the process of shared-decision making and choose the optimal surgical route for a specific patient.

### TARGET GROUPS

The results of this thesis are interesting for physicians, gynaecologists, general practitioners, medical industry and most important, women. The study regarding practice pattern variation demonstrates great variation in the treatment of POP in a small country as the Netherlands, and indicates the importance of developing a clearly defined guideline.

The results of the LAVA-trial will not only help to establish evidence-based guidelines, but also help to develop a decision tool for shared-decision making. Hopefully this will lead to an increase in patient satisfaction.

### **ACTIVITIES AND INNOVATIONS**

All study results have been submitted to international scientific research journals. To gain more attention on this work, the results of the studies are presented and discussed on national and international scientific meetings.

### **SCHEDULE AND IMPLEMENTATION**

In order to evaluate treatments for POP and to determine the best treatment with the highest patient satisfaction, further research is necessary. Studies regarding conservative versus surgical treatment of POP are needed, and furthermore the technique of laparoscopic sacrohystopexy can be optimized. Other laparoscopic uterine suspension techniques need to be evaluated as well.

One major problem in evaluating effects of POP surgery is the range of outcome measures, which are not reported in a consistent manner. As a result of heterogenous outcomes, meaningful meta-analysis of POP outcome data is impossible. Regarding POP surgery, any definition of success should include the absence of vaginal bulge symptoms in addition to anatomical criteria and the absence of re-treatment. However, patient reported outcome measurements (PROM's) on quality of life, functional outcome and sexual functioning are perhaps the most important since severity of the prolapse does not correlate with prolapse symptoms or the impact on quality of life. In addition, the goals of POP treatment are reducing the symptoms and improving quality of life. Therefore, these PROM's should always take into account when evaluating surgical outcomes.