Update

Surgical mesh reconstruction for post hysterectomy vaginal vault prolapse. Part II: Treatment and complications

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Abstract: The post hysterectomy vaginal vault prolapse (PHVVP) occurs with up to 50% of parous women. It was reported to cause a variety of urinary, bowel and sexual symptoms and to necessitate surgical correction in 11% of the female population. Up to 30% of all females suffer from pelvic floor relaxation progressed to a level which has a negative impact upon their quality of life. Hysterectomy results probably with damages to the integrity and blood supply of the endopelvic fascia as well as to the innervation of the pelvic floor musculature. This might potentially contribute to later POP manifestation. Post hysterectomy vaginal vault prolapse challenges commonly the pelvic floor healthcare practitioner, requiring thorough understanding of the pathology and adequate skills for treating it. Various aspects of PHVVP reconstructive surgery a well as operations for the cure of co-existing morbidities as urinary incontinence, vaginal wall prolapse etc. are discussed in depth.

Key words: Post hysterectomy vaginal wall prolapse management.

1. POST HYSTERECTOMY VAGINAL VAULT PROLAPSE: THERAPEUTIC GOALS

One should bear in mind the different surgeon's and patient's expectations and desires related to POP therapy. While the practitioner might be satisfied with goon anatomical restoration, the patient looks for the functional recreation mainly. There is a need for a holistic approach towards the patient's anatomical abnormalities and the related functional impairments, including urine and fecal control and sexual intercourse. Patient's un-realistic expectations with the therapeutic process should be identified and adjusted to the known operative curative properties regarding urinary and fecal incontinence, bladder over activity symptoms, sexual functions as well as body image. Co-existing occult urinary female stress incontinence should be diagnosed prior to surgery and dealt with an anti-incontinence concomitant procedure.

2. POST HYSTERECTOMY VAGINAL VAULT PROLAPSE: HERNIATION CONCEPT

POP is actually bulging of viscera through weakened pelvic floor and vaginal walls. Terms used to describe the pelvic organ prolapse in general, and particularly post hysterectomy vaginal vault prolapse could be easily replaced by simply stating the specific herniation process. Cystocele and urethrocele are then herniation of the anterior compartment of the pelvic floor. Uterine, uterine cervix and PHVVP prolapse are all central pelvic floor herniation and enterocele, rectocele and perineal body tear are herniation of the posterior compartment of the pelvic floor. Endorsement of this approach improves the understanding of the underlying process and points to the appropriate therapeutic tools elected for cure, based on the knowledge accumulated regarding hernia repair at other regions of the human body.[1]

3. POST HYSTERECTOMY VAGINAL VAULT PROLAPSE RECONSTRUCTION: ARCHITECTURAL DESIGN

Comprehensive pelvic floor anatomic-functional approach should be based upon solid long lasting suspension of the vaginal vault apex to well established pelvic sustained structures. Among such are the ATFP (Arcus Tendineus Fascia Pelvis) and the sacro-spinous ligament. The first lays along the lateral border of the levator ani muscles, from the inferior pubic ramus and the obturator membrane anteriorly to the ischial spine posteriorly and the second connects the iscial spine to the sacrum. Another anchoring option is the pre-sacral fascia, which longitudely covers the sacral vertebra and provides a solid structure which might serve as a suspensory point to secure the vaginal apex to. Attaching the vaginal vault to one of these ligaments will yield a long lasting apical support, permitting restoration of the impaired pelvic floor and organs functions. Some advocates the pre-sacral fascia, as it is easily reached it is reached easily via the peritoneal cavity, either by laparotomy or by laparoscopy, while others are against because of relatively high rates of intra and post operative bleeding potential, prolapse recurrence and difficult vaginal access. The ATFP, being relatively easily accessed via vagina is elected by some for vaginal vault support, and others will go for the SS ligament, saying this is the most stable pelvic structure, hence providing the best and longest standing support. Deep pelvic dissection, wider than for the ATFP, is necessary for reaching the SS. The cardinal and the utero-sacral ligaments are other potentially usable supportive pelvic anchoring points, yet not easily identified and often obscure. Unfortunately, there is no comparative data to guide any evidence based decision making regarding the preferred pelvic supportive connective tissue, rather than experts opinions.

4. POST HYSTERECTOMY VAGINAL VAULT PROLAPSE: NON-MESH REPAIR

The PHVVP non mesh repair operations are mainly done via vaginal approach as the abdominal rout might frequently requires mesh to bridge the gape between the vaginal apex and the anchoring point at the pre-vertebral fascia. For sexually non active women, whenever the vaginal sexual functions might be sacrificed, colpectomy or vaginal obliteration (Le Fort operation) is a therapeutic option. These relatively safe and simple operations are carried out vaginally, yet prolapse recurrence rate was not established. The vaginal capacity is significantly and irreversibly reduced with these operations. If sexual intercourse function should be preserved, the vaginal capacity is to be maintained. Then are the commonly performed vaginal vault prolapse non-mesh repair done by apical suspension to the SS ligament. The sacro-spineous fixation operation requires deep para-rectal pelvic dissection and is eventually related to significant intra-operative bleeding. This operation was reported to be complicated by post-operative dispareunia, buttock pain, urinary and fecal incontinence, cystocele and rectocele formation, altered defecation and constipation, bladder injuries,