

Treatment of Complete Genital Prolapse by Sacrospinous Fixation, Anterior Mesh Repair and Conservation of the Uterus

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Rezumat

Cura prolapsului genital total prin histeropexie la ligamentele sacrospinoase, montare mesh anterior de polipropilenă și conservarea uterului

Tratamentul chirurgical al prolapsului genital trebuie să aibă ca obiectiv refacerea sistemului conjunctiv de susținere ale vaginului. Extirparea uterului nu aduce niciun beneficiu în tratamentul chirurgical al prolapsului total. Conservarea uterului aduce un plus atât din punct de vedere al staticii pelvine, cât și din punct de vedere al reducerii traumei operatorii. Este prezentat un caz de prolaps genital total, la o pacientă în vârstă de 60 de ani, la care s-a conservat uterul și s-a efectuat histeropexie la ligamentele sacrospinoase (folosind instrumentul Sacrofix), s-a montat mesh anterior polipropilenă cu 4 brațe, pasaj transobturator, s-a montat bandelela suburetrala polipropilena tension - free, pasaj transobturator și s-a refăcut centrul tendinos al perineului. Rezultatele au fost foarte bune atât din punct de vedere al staticii pelvine, cât și al funcționalității vezicii urinare. **Concluzie:** tratamentul chirurgical al prolapsului genital total reprezintă o chirurgie de reconstrucție și nu una de exereză.

Cuvinte cheie: prolaps genital total, conservarea uterului, histeropexie la ligamentele sacrospinoase

Abstract

The surgical treatment of complete genital prolapse must aim the restoration of the vaginal support structures. All 3 levels of the vaginal support system must be recreated. Ablation of the uterus is not useful for pelvic floor support. Sparing of the uterus offers the advantage of a reduced surgical trauma, and better pelvic floor restoration. We present the case of a 60-year-old woman with complete genital prolapse where the uterus was spared, and sacrospinous fixation, anterior mesh repair, perineal body repair and suburethral sling insertion were performed. The results were very good, by means of pelvic floor statics and physiology of micturition.

Conclusion: genital prolapse must be cured by reconstruction of the vaginal support system, not by hysterectomy.

Key words: complete genital prolapse, uterus conservation, sacrospinous fixation

Intoduction

Complete genital prolapse appears when all 3 levels of vaginal support (De Lancey) are damaged. The objective of the surgical treatment in this case must be the restoration of these support structures (1).

Genital prolapse used to be a reason for performing transvaginal hysterectomy for many years. But the conservation of the uterus offers many advantages: reduced surgical trauma (2) and blood loss, quicker recovery and shorter hospitalization time (3). Also the spare of both pericervical ring and vascularization of uterosacral ligaments is important for the

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pelvic floor anatomy. A better function of the urinary bladder is obtained by conserving the uterus; urgency and frequency being more frequent among patients with prior hysterectomy (4).

The use of polypropylene mesh is useful in order to obtain extra support for the pelvic floor (1).

The sacrospinous ligaments are structures of good resistance, and offer an alternative for anchoring the vaginal apex (2,3).

Relevant anatomy

The vaginal support and anchoring system has 3 levels (De Lancey): level I (superior) holds the vaginal apex attached to the uterosacral and cardinal ligaments; level II anchors the vaginal walls to the tendinous arch of the endopelvic fascia; level III (inferior) is represented by the perineal body (5). All these structures must be repaired in order to have a correct treatment of complete genital prolapse (1).

Case report

We present the case of a 60-year-old patient with complete genital prolapse (Fig. 1). A complete clinical exam, ultrasound examination and Papp smear were performed. There were no other genital pathological findings; so no indication for hysterectomy was found. Conservation of the uterus was decided.

A sacrospinous fixation, with anterior mesh repair, perineal body repair and suburethral sling insertion was the treatment of choice.

Local estrogens were administered one week before surgery as prior surgery preparation.

For level I repair the fixation to sacrospinous ligaments was performed. A posterior transversal vaginal incision was done, both ischiorectal spaces were opened, the ischiatic spines and the sacrospinous ligaments were identified bilaterally. Using the Sacrofix device (Fig. 2) 2 polypropylene threads were placed through the sacrospinous ligaments bilaterally.

For level II repair an anterior polypropylene mesh with 4 arms was inserted. An anterior vertical incision of the anterior vaginal wall was performed. The vaginal mucosa was dissected from the urinary bladder until the ischial bone was reached. The superior arms of the mesh were brought out to the skin through the obturator space, and the inferior arms were passed around the cervix (recreating the pericervical ring), and then tight with the sacrospinous threads.

For level III repair a suburethral TOT sling was inserted, and a perineal body repair was performed.

No vaginal mucosa was removed.

The postoperative evolution was good, with discharge at 48 hours.

Follow up visits were performed at one week (Fig. 3), 9 months and one year after surgery, with excellent results.

The results were considered very good. The cervix was about 4-5 cm above the hymenal ring. The patient was questioned about pelvic pain, frequency, urgency, nocturia and stress incontinence. She did not report any of these



Figure 1. Complete genital prolapse



Figure 2. The instrument Sacrofix



Figure 3. Position of the cervix one week after surgery

symptoms, and related a very good functionality of the urinary bladder and pelvic floor.

Discussions

Hysterectomy is still used in an unjustified manner to cure pelvic organ prolapse (7). The prolapse of the uterus is the result of the weakening of the ligamentary system (mainly the uterosacral ligaments), and not by any means, the cause of the pelvic floor prolapse (1).

The conservation of the uterus offers, besides reduced surgical trauma, a better function of the pelvic floor and urinary bladder. Urgency and frequency are more common among women with prior hysterectomy (4). Further studies, using the urinary diary could be useful.

The goal of this surgical technique is to restore the anatomy of the pelvic floor, in order to obtain a proper function, according to the integral theory of Petros (1).

The use of the device Sacrofix facilitates the passing of the threads through the sacrospinous ligaments in a safe manner. The placement of the threads is deep, close to the sacral bone, at a safe distance from the inferior pudendal pedicle, the main source of bleeding in that area (6), and the sciatic nerve (8).

The excision of vaginal mucosa is not a cure for genital prolapse, this will only narrow and shorten the vagina, causing even more discomfort and making further surgery even more difficult.

The use of polypropylene mesh offers extra resistance, but raises the possibility of erosion of the vaginal mucosa.

The insertion of a suburethral sling prevents the so called "de novo stress incontinence", that might appear after the repair of the anterior vaginal wall (9).

The transvaginal route is not the only one available, the endoscopic or abdominal approach are also used (10,11,12,13), but it is the least invasive.

Since the administration of multiple doses of antibiotics failed to reduce wound infections after mesh repair of the vaginal or abdominal wall, we administered only one dose of antibiotic one hour before surgery (14).

Conclusions

Genital prolapse must be cured by reconstruction of the vaginal support system not by ablation of the uterus.

Contributing authors

All authors had equal contribution.

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