

A NEW METHOD IN APPROACHING UTERINE PROLAPSE “ANCHORING UTERINE ISTHMUS WITH A STRIP AT THE RECTUS ABDOMINAL MUSCLE SHEATH, SABA NAHEDD PROCEDURE”

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Abstract: Introduction: The uterus prolapse means the uterus descends into the vaginal axis and outside it, accompanied by the movement, to the same direction, of the vagina walls and the adjacent portions of the urinary bladder and rectum. Materials and methods: A total of 54 cases with the new surgical procedure for anchoring uterine isthmus with strip at the rectus abdominal muscle were hospitalized and operated in “Polizu” Hospital between 25.10.2012 and 26.06.2015. These cases were hospitalized with a diagnosis of uterine prolapse in 2nd and 3rd degree cystocele per - magna, which after clinical and laboratory investigations “mictional cystography” fractional biopsy curettage, resection with cervical loop diathermy to exclude associated pathology especially neoplasia, were surgically solved. In the 54 cases, we performed a new therapeutic method for resolving uterine prolapse: “Anchoring uterine isthmus with a strip at the rectus abdominal muscle sheath, procedure Saba N”. For this procedure I have invented a kit: Saba’s Strips which contains: a special isthmic strip, sub urethral strip, S & N clamp for anchoring isthmus. The technical procedure which resolves this problem consists of: anchoring the isthmic strip on the back of the uterine isthmus and the free part of the strip is fixed on the front of the isthmus in order to prevent the slipping, so all the weight of the uterus is supported by the strip as a hammock, the second strip is attached to the suburethral junction and then anchored to the rectus abdominal muscle sheath by counter suprapubic incision. So the repositioning of the uterus in anatomical, intermedian position without opening rectovaginal space not to train elitro-rectocele. Conclusions: The technique has the advantage of a complete and effective surgical treatment of uterine prolapsed in 2nd and 3rd degree and cystocele per magna because: it solves the uterus prolapse and cystocele per magna and brought it back to its anatomical position; placing the uterus in the intermediary, normal, position avoids the extension of rectovaginal space and consequently prevents the occurrence of rectocele and elitrocel; it solves incontinence effort by using suburethral strip; use of the polypropylene material that fits the unabsorbable threads rectus abdominal sheath, independent tissue hormone, makes the chances of recurrence to become the smallest possible or almost nonexistent, in the 54 cases of replacement it was “zero”. Surgical approach is exclusively vaginal avoiding incidents and accidents when opening peritoneal cavity.

INTRODUCTION

In the pelvic cavity, the uterus is supported by muscles, tissues and ligaments that form the pelvic plate.

The uterus prolapse means the uterus descends into the vaginal axis and outside it, accompanied by the movement, to the same direction, of the vagina walls and the adjacent portions of the urinary bladder and rectum.(1)

This means a progressive descend into the small basin of the uterus, as a consequence of the relaxation of muscles and unextendable fiber tissues of the perineum (the muscles that form the basin’s basis), as well as of the support means of the small basin’s organs.(2)

Causes and risk factors determining this pathology are:(3)

- Multiple births and difficult baby delivery of big weight babies are the main cause triggering the muscle relaxation and weakening, leading to uterus prolapse.
- Loss of muscles tone associated to ageing and estrogen level lowering after menopause, overweight, chronic cough, chronic constipation can contribute to or cause uterus prolapse.

This explains the herniation and uterus prolapse outside the vulvury isthmus in several degrees, with clinical symptoms consisting of the weight sensation in the lower pelvis, lumbar pain when walking, peeing, during sexual intercourse, the sensation that “something drops outside” / “I’m sitting on a ball”, irritation of the introitus and ulcerations of the prolapsed organs, urinary effort incontinency (UEI).

All these symptoms create a biologic and social discomfort for the patients.

Uterine prolapse is often associated with urinary effort incontinence; urine drops loss on effort(1), sometimes covered by the excessive prolabation of the uterus, by urethra folding.

UEI association is mentioned in 73% of the cases, and malfunctions of the urinary bladder emptying in 50 – 60%. respectively in the empty bladder dysfunction.(4)

In clinical practice cystocele and UEI as well as loss of the support of the vagina posterior wall contribute to urethral mobility and to etiopathogenic conditioning of UEI as a consequence IUE.(5)

Is mentioned that after any surgical treatment for correcting the uterus prolapse, there must also be considered the

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correction of the stress urinary incontinence which is sometimes masked.

MATERIALS AND METHODS

Between 10/25/2012 and 6/26/2015, 54 cases were hospitalized and operated in Polizu Hospital by means of the new procedure. These cases were hospitalized with a uterine prolapse in 2nd and 3rd degree cystocele per-magna and benefitted from this technique after clinical and paraclinical investigations: "mictional cystography" fractional biopsy curettage, resection with cervical loop diathermy to exclude associated pathology – specifically the neoplasia.

A new correctional method was applied for the 54 cases in order to correct the uterine prolapse: "anchoring the uterine isthmus with a strip at the rectus abdominal muscle sheath by Saba N procedure".

For this procedure I invented "SABA's strips" kit (figure no. 1) with the approval of OSIM by Decisions no. 23012,23013 /30.12.2013, Licence no. 020476, containing:

- One special isthmus strip made of polypropylene, 1.2 cm long (figure no. 2), to the heads of which an unabsorbable thread is tied, and from one of the strip's ends another free strip is connected forming an Y shape.
- One sub-urethral strip (figure no. 3) of the same material, 10 cm long, one thread is connected to each of its ends.
- One S & N clamp for anchoring isthmus. *S&N clip to anchor the uterine isthmus* (figure no. 4) with 2 arms connected between themselves, with 2 orifices on its top. The clip has an additional ring to recover the angle necessary to form the tunnels. It also has 2 arms of 2.5 cm (right and left) showing the clip's inclination towards the urethral meatus.

Figure no. 1. The Saba Strips Kit



Figure no. 2. Special isthmus strip

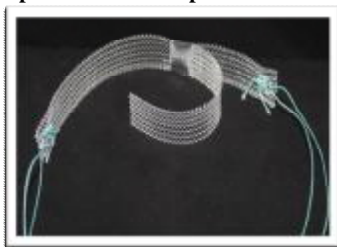


Figure no. 3. Sub-urethral strip

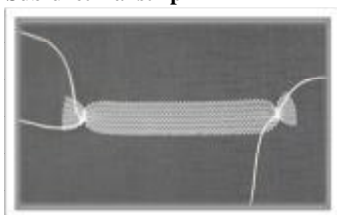


Figure no. 4. S&N Clip to anchor the uterine isthmus



The technical problems this procedure solves consist of anchoring the isthmus strip on the posterior side of the uterine isthmus, as well as the free part of the strip is fixed on the anterior side of the isthmus in order to stop its sliding, thus the entire uterus weight is supported like a hammock, the second suburethral strip is fixed on the urethral junction and then anchored to the abdominal straight muscle sheath by a horizontal suprapubic incision of around 5 cm. Thus the uterus is replaced in its intramedian position without opening the rectovagina space in order not to cause a eltro-rectocele.

The invented strips are related to Popa Petros's Theory according to which the appearance of prolapse is due to the alteration of the conjunctive tissue that needs to be strengthened with these propylene implants.

The sub urethral strip forms the main pillar and anchors the weakened pubic urethral ligaments, and the isthmus strip forms the second important pillar in teoria produl and anchors the uterus sacra ligaments.

RESULTS AND DISCUSSIONS

The lack of a consensus regarding the current existence of an optimum and efficient surgical procedure in such an anatomic morbid context made me elaborate this surgical procedure with the following operational stages:

Time 1: The reversed "T" incision 1.5 cm off the external cervical orifice down to the urethral tubercle (figure no. 5).

Figure no. 5. The reversed "T" incision 1.5 cm off the external uterine orifice down to the urethral tuberculus



Time 2: Cutting the bladder off the anterior vagina wall and the bladder off the cervix (figure no. 6).

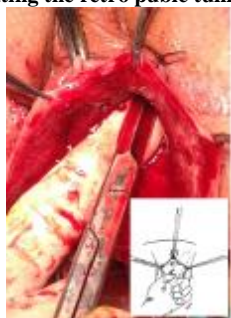
Figure no. 6. Cutting the bladder off the anterior vagina wall and the bladder off the cervix



Time 3: Creating the retro pubic tunnels (figure no. 7).

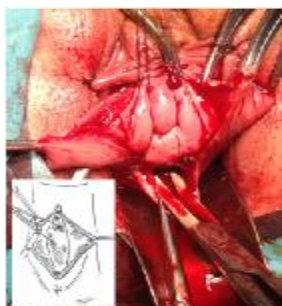
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Figure no. 7. Creating the retro pubic tunnels



Time 4: Continuation of the circular incision on the posterior side of the cervix and cutting of the vagina tread off the rectus (figure no. 8).

Figure no. 8 Continuation of the circular incision on the posterior side of the cervix and cutting of the vagina tread off the rectus



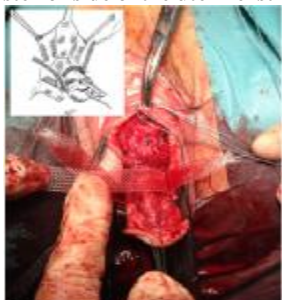
Time 5: Clipping, sectioning and ligation of the cardinal ligaments of approximately 1 cm (figure no. 9).

Figure no. 9. Clipping, sectioning and ligation of the cardinal ligaments of approximately 1 cm



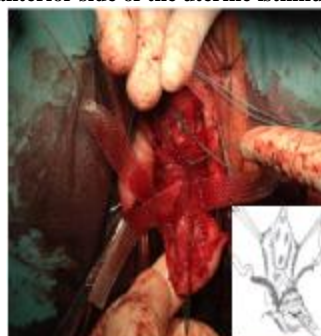
Time 6: Fixing the “long” isthmic strip on the lateral sides and the posterior side of the uterine isthmus (figure no. 10).

Figure no. 10. Fixing the “long” isthmic strip on the lateral sides and the posterior side of the uterine isthmus



Time 7: The “short” free part of the isthmic strip is fixed on the anterior side of the uterine isthmus (figure no. 11).

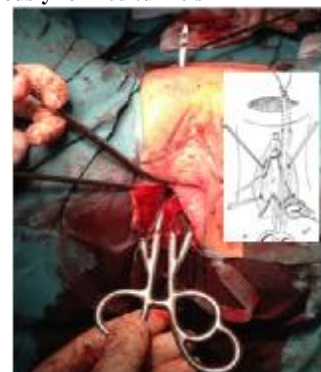
Figure no. 11. The “short” free part of the isthmic strip is fixed on the anterior side of the uterine isthmus



Time 8: Suprapubic transversal incision of 5 cm.

Time 9: The S&N clip the ends of the suburethral strip are fixed into the superior orifice, and the ends of the isthmic strip into the inferior orifice passing them through the two previously formed tunnels (figure no. 12).

Figure no. 12. The S&N clip the ends of the suburethral strip are fixed into the superior orifice, and the ends of the isthmic strip into the inferior orifice passing them through the two previously formed tunnels



Time 10: Anchoring and ligation of the threads from the suburethral strip to the side extremities of the straight abdominal muscles aponeurosis, under the guidance of a graded urinary catheter until a 1.5 cm extension of the urethra is obtained (figure no. 13).

Figure no. 13. Anchoring and ligation of the threads from the suburethral strip to the side extremities of the straight abdominal muscles aponeurosis, under the guidance of a graded urinary catheter until a 1.5 cm extension of the urethra is obtained



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Time 11: Anterior colpectomy followed by anterior colpography and suturation of the cervix posterior incision (figure no. 14).

Time 12: Median anchoring of the ends of the isthmic strip to the straight abdominal muscles sheath (figure no. 15).

Time 13: Tractioning and ligation of the threads on the uterine isthmus (figure no. 16).

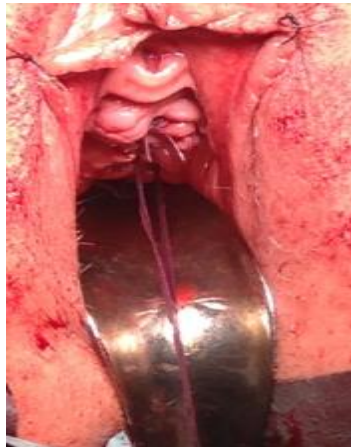
Figure no. 14. Anterior colpectomy followed by anterior colpography and suturation of the cervix posterior incision



Figure no. 15. Median anchoring of the ends of the isthmic strip to the straight abdominal muscles sheath



Figure no. 16. Tractioning and ligation of the threads on the uterine isthmus



Time 14: Suture of the suprapubic incision

Time 15: Posterior Colpoperineorrhaphy with myography of the levator ani (figure no. 17).

Figure no. 17. Posterior Colpoperineorrhaphy with myography of the levator ani



Cervix amputation can also be made on this technique when there are colposcopic lesions or the hypertrophic extension of the cervix, then the previously mentioned operation times are followed.

The 54 operated cases were aged between 31 and 81, most of them being aged around 60 (third age)

Out of the total cases operated by the procedure “Anchoring the uterine isthmus to the straight abdominal muscles sheath”, in 39 cases cervix amputation was necessary dues to a marked colposcopic lesion or hypertrophic extension of the cervix.

In all the previously mentioned cases micturating cystogram was made before and after operation. Micturating cystogram after operation reveals the inferior pole of the urinary bladder, with an irregular contour and is placed at the level of the pubic symphysis, that is the ascension of this pole which was much lowered under the inferior border of the pubic symphysis.

Patients were released on the 6th or 7th day with a good urinary continence and bladder residual between 0 and 40 ml, with the disappearance of all symptoms accused upon hospitalization.

Right after the operation the foley urinary catheter was kept for 3-4 days, during the first 48 hours with a permanent draining, that is “with an ampoule at the end of the foley catheter” in order to recover the urinary bladder. Meanwhile bladder instillation was applied with Ampiciline 1 gr, hydrocortisone Hemisuccinate 1 ampoule, Xiline 1 ampoule, and during the last 48 hours one ampoule of Miostin was added in the bladder instillation and one ampoule of intra muscle Miostin in order to stimulate the contraction of the urinary bladder’s muscles.

All patients were called for a check-up 1 month, 3 months, 6 months later, and then 1 year after the operation (figures no. 18, 19).

Figure no. 18. Before operation



Figure no. 19. After operation (2 years and 5 months later)



The clinical examination and questions revealed that the cervix is placed in a intramedian position, with continence and during the valve handling. It is worth mentioning that no case of relapse was recorded so far.

CONCLUSIONS

The technique has the advantage of a complete and efficient surgical treatment of the uterine prolapse in 2nd and 3rd grade, and of the cystocele per-magna because:

- It solves the uterine prolapse and cystocele per-magna and brings it to its own anatomic position.
- Placing the uterus in an intramedian normal position avoids increasing the rectovaginal space and thus prevents the appearance of the rectocele and elitrocele.
- It solves urinary effort incontinence by using the suburethral strip.
- Using the polypropylene and unabsorbable threads fixed on the sheath of the straight abdominal muscles, an independent hormonal tissue, makes the relapse chances be as small as possible or almost absent, whereas relapse was "zero" in 31 cases.
- The surgical approach is exclusively vaginal thus avoiding incidents and accidents common in case of peritoneal cavity opening.

This number of cases (54) is still small, the time is too short (2 years and 8 months), but patients will be followed along a 5-year period, even longer if necessary, in order to demonstrate that there are no relapses to this technique if surgical stages are strictly respected, as the technique is based on polypropylene material and unabsorbable threads anchored to the straight abdominal muscles, an independent hormonal tissue, that is "it doesn't relax with age".

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