E-ISSN:2455-5444
P-ISSN:2581-4389
RNI:MPENG/2017/74037
Research Article
Abdominal

Obs Gyne Review - Journal of Obstetric and Gynecology
2020 Volume 6 Number 6 November-December

Publisher
MEDRESEARCH
www.medresearch.in

Study of Abdominal Shirodkar sling operation for uterocervical prolapse

M Patel U.[1*], B. Shah M.[2], R. Shah J.[3]

DOI: https://doi.org/10.17511/joog.2020.i06.03

[1*] Uday M Patel, Associate Professor, Department of Obstetrics and Gynaecology, GMERS Medical College, Patan, Gujarat, India.

[2] Manoranjana B. Shah, Retired Professor, Department of Obstetrics and Gynecology, B J Medical College, Ahmedabad, Gujarat, India.

[3] Jui R. Shah, MBBS, B J Medical College, Ahmedabad, Gujarat, India.

Aim: To study the procedures of abdominal Shirodkar sling itself and its results. **Material and Methods:** Abdominal Shirodkers sling operation for conservative surgery for uterocervical descent is performed in thirty-three women of civil hospital Ahmedabad. The procedure is difficult and bold but is the perfect anatomical solution to strengthen weak uterosacral ligaments with the help of a mercelene tap. **Results**: Long term follow up also showed good results. This helps in treating infertility due to prolapse. Moreover, vaginal delivery is possible following this conservative surgery. Cystocele is also corrected by pulling the uterus in its position with a newly created uterosacral ligament with a mercelene tap. **Conclusion**: Abdominal sling with Dr. Shirodkar's method is the real corrective solution to weekend uterosacral ligaments. It is the perfect anatomical solution for conservatives' approach to uterocervical descent. Of course, Procedure is difficult and requires boldness.

Keywords: Prolapse, Uterocervical Prolapse, conservative surgery, Abdominal Shirodkar Sling operation

Corresponding Author

Uday M Patel, Associate Professor, Department of Obstetrics and Gynaecology, GMERS Medical College, Patan, Gujarat, India.
Email: udaypatel1810@gmail.com

How to Cite this Article

Patel UM, Shah MB, Shah JR. Study of Abdominal Shirodkar sling operation for uterocervical prolapse. Obs Gyne Review J Obstet Gynecol. 2020;6(6):120-124.
Available From
https://obstetrics.medresearch.in/index.php/joog/article/view/123

To Browse

Manuscript Received	Review Round 1	Review Round 2	Review Round 3	Accepted
2020-12-07	2020-12-14	2020-12-18		2020-12-21

Conflict of Interest	Funding	Ethical Approval	Plagiarism X-checker	Note
No	Nil	Yes	9%	

Introduction

Genital prolapse is one of the major complaints encountered in our gynaecological practice. Various conservative and operative modes of treatment have been devised to cure the condition. No subject has evoked more discussion, debates, and disagreements in Gynaecology as that of conservative management of prolapse in patients who are interested in retaining fertility and childbearing.

Today most gynecologists are employing Fothergill-Manchester operation or abdominal sling operation to correct prolapse uterus in young women. n. In Fothergill-Manchester Repair, amputation of the cervix, the advancement of Mackenrodt's ligaments to the anterior aspect of what remains of the cervix, an anterior colporrhaphy, and perineorhhapy are done.

This time- honoured technique has various shortcomings i.e. cervical stenosis, infertility, cervical incompetence, cervical dystocia during labor, dyspareunia, and recurrence of prolapse after pregnancy or otherwise was also reported to the extent of 20-25% (Shaw 1933). An ideal conservative method should preserve menstruation, restore fertility, and should not interfere with labor and of course be technically easy at the same time [1-5].

As this type of prolapse occurs at a younger age, the surgical technique should not only reduce the prolapse but also retain the reproductive function. Various conservative surgeries have been described in the past, each having its own merits and demerits. Purandare described a technique for the surgical treatment of genital prolapse in young women in 1965 [6].

In gynecology, Dr. Shirodkar's contribution to uterocervical prolapse is a matter of pride for us, the Indians. Conservative surgery that is Shirodkar's abdominal sling operation is the perfect and complete anatomical solution to weak uterosacral ligaments. It restores the anatomy of the uterus repairs the descent as well as cystocele and enterocoele. Of course, it is a bit difficult and bold procedure, results are excellent.

Aim of the study

To study the procedures of abdominal Shirodkar sling itself and its results.

Material and Methods

Study setting

Women who attended the gynecology Department of the Civil hospital of Ahmedabad with complaints of uterine prolapse were selected.

Inclusion criteria

Obese women, women having uterine pathology, and cervical pathology were not included in the study.

Ethical approval

Ethical approval was taken from the institutional ethical committee and written informed consent was taken from all the participants.

Sample size distribution and duration of the study

A total of 33 women are included in the study. They had no other chronic disease. All these women were operated on from 1990 to 2001 in civil hospital and B. J. Medical College Ahmedabad.

Data collection

Women were examined and were submitted to all investigations for major surgery. Performa included name, age, detail address, parity, menstrual history, local examination, P/V, P/S, and investigations.

A thorough examination was done for utero cervical descent, utero cervical length, cystocele, enterocoele, and rectocele.

Pre- operating preparation was done as usual for spinal anesthesia. The procedure performed is exactly as described by doctor Shirodkar. Women were operated on within seven days of menstruation.

Procedure

An anterior longitudinal ligament in the front of the sacral promontory was dissected and identified. The sparing median sacral artery midpoint of mercelene tap (the pack is available from Jhonson and Jhonson) was fixed as described by Shirodkar with 2 0 silk. Both right and left ends of the tap were caught with artery forceps. Then peritoneum near the left infundibulo ligament was incised to expose the left psoas muscle. Left external iliac artery and the genitofemoral nerve were identified. Retracting the artery a small loop of mercelene tap was fixed to the psoas muscle.

This loop is made to prevent kinking of sigmoid colone.

After this peritoneum on the posterior surface of the uterus near the isthmus is incised. One long curved artery forceps is passed extraperitoneal along the right uterosacral ligament to catch the right end of the mercelene tap. This right end comes out through this incision on the posterior surface of the uterus. The same way the left end of the mercelene tap is caught along the left uterosacral ligament via psoas loop. Both the ends of the mercelene tap are fixed on the posterior part of the uterus so as the uterus is pulled up and remains anteverted. Externalos comes at the ischial spine level. Excess tap is exiced.

Peritoneum over the posterior surface of the uterus over the left psoas and in front of the sacral promontory is repaired. Abdominal cavity cleansed and abdomen is closed in layers. Rectus is repaired in double breasting to prevent incisional hernia. Prophylactic antibiotics and anti-inflammatory drugs were prescribed for seven days. Postoperative management as usual as in any major surgery.

Stitches were removed on the eighth-day women were discharged on a ninth day. Follow up was recorded after one month. After the 33rd case was operated on, all women were called for follow-up by writing the letter. Many women came; their story is included as long term follow up.

Statistical analysis

The recorded data was compiled and entered in a spreadsheet computer program (Microsoft Excel 2007) and then exported to the data editor page of SPSS version 15 (SPSS Inc., Chicago, Illinois, USA). For all tests, confidence level and level of significance were set at 95% and 5% respectively.

Results

Table-1: Age-wise Distribution of study participants.

Age in years	No of cases
Less than 20	3
21 to 30	26
31 to 35	3
More than 37	1
Total	33

The majority of women are of age 21 to 30 years I e 26 women

Table-2: Parity wise distribution of study participants.

Parity	Number of cases
nulliparous	3
Para one	11
Para two and three	18
Para four	1
Total	33

18 women are para two and three. Two nulliparous had congenital prolapse of 3rd degree.

Table-3: Uterocervical descent.

Descent in degree	No of cases
2nddegree OS up to introitus	2
3rd degree OS outside introitus	28
4th-degree procidentia	3

The majority I e 28 women had 3rd-degree prolapse. Five women had appreciable cystocele

Remarkable Intraoperative Findings

- In two cases psoas loop was fixed on the right psoas muscle as the mesentery was on the right side.
- In two cases there was lumborization of Sacrum. It was confirmed on the x-ray. Dissection at sacral promontory was difficult.
- In one case prolene mash was used due to the non-availability of osmercelene tap. It worked well.
- One woman had a unicornuate uterus with rudimentary horn and the left ovary had lemon size cust, so along with sling cystectomy was performed.

Discussion

The occurrence of genital prolapse in a younger woman can be a cause of infertility and significant morbidity. Various conservative surgeries have been described in the past, each having its own merits and demerits [7-10]. The Manchester operation, described by Donald and Fothergill, was the first surgery described for nulliparous prolapse.4 Shirodkar VN later modified this by describing uterosacral advancement and preservation of the cervix [5].

Next in the evolution of conservative surgery for prolapse many sling surgeries were described which soon became popular because of their simplicity and effectiveness.

Initially, native fascia like fascia lata and rectus sheath was used which later got replaced by synthetic slings that produce minimal tissue reaction and remain unabsorbed giving lifelong support [11]. Failure of conservative surgeries like traditional Fothergill's or sling surgeries was because of the use of native fascia for repair, the same endopelvic fascia that has caused prolapse. The use of synthetic materials like merselene tape and mesh in modern sling surgeries has decreased the failure rates and gives lifelong support.

Out of thirty-three selected women, two cases could not be operated. In one case, the Anterior longitudinal ligament could not be dissected due to big vessels in front of the promontory, in that case, an anterior purandare sling was performed. In the second case while dissecting at sacral promontory profuse bleeding occurred so the procedure was postponed.

Post-Operative Period

Thirty women had an uneventful postoperative period. They were discharged on the 8th or 9th day. One woman developed pain in the left iliac fossa on the third day, she was switched over higher antibiotic and anti-inflammatory and became alright. One woman had deep gaping on stitch removal which was resutured. One woman was operated on 25th January, on 26th there was a high scale earthquake in Ahmedabad she had run to the ground floor with IV line and bottle in her hand. Fortunately, her stitches were fine and she was discharged on the 8th day. All women reported after one month as per our advice all were fine.

Long Term Follow Up

Eight women reported after a long time for the following purposes.

A _case no 2 had developed incisional hernia after one year. Hernioplasty was done.

From this case, it was a learned lesson to repair the rectus sheath with extra care I e double breasting. Whenever possible, transverse incision was used, in that exposure to promontory was a little difficult. Same case no 2 came after 8 years for urinary infection.

B _Three women came for an antenatal check-up and all were delivered vaginally.

Sling was intact in all cases on follow up.

C __One woman came for the psychiatric problem for Hysterectomy as menstruation period was difficult for her to manage

D _One woman attended our outdoor for Urinary Tract Infection after two years. The same woman came three years for an antenatal checkup, she delivered vaginally. The same woman came after six years for MTP and Lap T L. On laparoscopy right sling was visualized properly. On the left side, a part of the sling from the sacrum could be seen in the left psoas muscle.

E_ One woman came after eighteen months for a medical problem. She was working as a laborer for heavy weight lifting. On examination, the uterus was in a normal position.

F_ One woman came after three years of operation for 2nd precious pregnancy. She had undergone L S CS and T L. Sling was fine and in position.

G_ It is noted cystocele is taken care of with pulling effect of sling and nothing is required for cystocele.

The limitation of the study was, findings of the present study cannot be generalized to the whole population.

Conclusion

Abdominal sling with Dr. Shirodkar's method is the real corrective solution to weekend uterosacral ligaments. It is the perfect anatomical solution for a conservative approach to uterocervical descent. Of-course Procedure is difficult and requires boldness.

What does the study add to the existing knowledge?

Modified Purandare's cervicopexy is technically a simple surgical procedure for the treatment of uterine prolapse in young women who wish to retain their reproductive function. This operation can be performed with less intraoperative complications, good postoperative recovery, and less recurrence.

Author's contribution

Dr. Uday M Patel and **Dr. Manoranjana B Shah** formulated the aims and objectives with study design and helped in data collection from the medical record department.

Dr. Jui R Shah contributed to the preparation of the manuscript and data analysis.

Reference

01. Virkud A. Conservative Operations in Genital Prolapse. J Obstet Gynaecol India. 2016;66(3)144-148.
doi: 10.1007/s13224-016-0909-8 [Crossref]

02. Purandare VN. New surgical technique for surgical correction of genital prolapse in young women. J Obstet Gynaecol India. 1965;53-62.
[Crossref]

03. Dietz V, Schraffordt Koops SE, van der Vaart CH. Vaginal surgery for uterine descent- which options do we have? A review of the literature. Int Urogynecol J Pelvic Floor Dysfunct. 2009;20(3)349-356.
doi: 10.1007/s00192-008-0779-4 [Crossref]

04. Fothergill WE. Anterior colporrhaphy and its combination with amputation of the cervix as a Single Operation. BJOG. 1915;27(3-5)146-147.
doi: 10.1111/j.1471-0528.1915.tb05951.x [Crossref]

05. Dastur B, Gurubaxani G, Palnitkar SS. Shirodkar sling operation in the treatment of genital prolapse. BJOG. 1967;74(1)125-128.
doi: 10.1111/j.1471-0528.1967.tb03947.x [Crossref]

06. Nichols DH. Fertility Retention in Patients with Genital Prolapse. Am J Obstet Gynecol. 164;5(1)1155-1158.
[Crossref]

07. Desai P, Preeti P. Surgical Conservation in Prolapse. Indian J Obstet Gynecol. 1990;528-532.
[Crossref]

08. Chakrabortti DK. Pregnancy Following Repair Operation for Genital Prolapse. Indian J Obstet Gynecol. 1985;282-285.
[Crossref]

09. Allahbadia G, Ambiye V, Vaidya P. Pelvic Relaxation in Child -Bearing Age Group. Indian J Obstet Gynecol. 1992;42(2)245-250.
[Crossref]

10. Naik K, Ahuja M, Kaduskar N, Gaikwad S. Are the trends in genital prolapse changing. Indian J Obstetr Gynecol. 1993;43;426-430.
[Crossref]

11. Sitaram L, Shah SH, Sequeira EJ. Shirodkar's Modified Manchester Operation. J Obstet Gynecol. 1967;296-301.
[Crossref]