

ANTERIOR COLPORRHAPHY: OUTCOMES ASSESSMENT IN RELATION TO PRE-OPERATIVE URINARY SYMPTOMS

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ABSTRACT

Background and Aim: Anterior colporrhaphy means plication of the anterior vaginal wall fibromuscular layer to correct the prolapse and to support the bladder, and is considered a traditional procedure. Urinary symptoms may associate cystocele like irritative urinary symptoms and stress incontinence and these symptoms may be relieved upon cystocele correction. However, cystocele repair may lead to urinary symptoms due to extensive local dissection of the anterior vaginal wall that results in bladder denervation injury. The aim of this study is to study the urinary symptoms before and after cystocele repair.

Patients and Methods: A prospective cross-sectional study was performed including 100 patients referred for anterior colporrhaphy surgery from March 2018 through December 2019 at the departments of Urology and gynecology at Azadi Teaching Hospital and Duhok Maternity Hospital in Duhok City, Kurdistan Region/Iraq. Pre and postoperative urological symptoms were evaluated.

Results: One hundred female patients subjected to anterior colporrhaphy, the mean patient's age was 39.42 years, the mean parity was 5.57 and BMI was 28.60. Seventy-five 75% of patients had history of vaginal delivery, while 25% of them had history of both vaginal delivery and cesarean section. The results show significant improvement of vaginal bulge by 92%, Stressincontinence(SI) 71.4%, urge incontinence 67%, frequency 59%, urgency 57.3%, nocturia 57% and dyspareunia 60%. Meanwhile, urinary tract infection and obstructive urinary symptoms were not significantly improved.

Conclusion: The study showed that women with coexistent irritative urinary symptoms and stress urinary incontinence with POP will show significant improvement after surgery.

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Keywords: Anterior colporrhaphy, Urinary symptoms, Urinary tract infection

Pelvic organ prolapse (POP) is the descent of the vaginal wall and/or the pelvic organs downward, which include the bladder, urethra, uterus, vaginal cuff after hysterectomy and the small or large bowels which lead to herniation of the vagina, descend of uterus or both¹.

Anterior colporrhaphy is the standard surgery for cystocele repair and is performed all over the world. In the USA, more than 200,000 POP surgeries are performed annually and 81% of them are

anterior colporrhaphy. The principle of anterior colporrhaphy is based on the plication of the vesicovaginal fascia of the anterior vaginal wall to reinforce the tissue between the vagina and the bladder².

Anterior vaginal wall prolapse becomes clinically significant when it causes bothersome symptoms as stress urinary incontinence, frequency and urgency. It is considered a treatment challenge for the surgeons due to the cystocele recurrence rate of up to 13%³.

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POP and voiding bladder symptoms are frequently coexisting together in the patient. The main cause of urinary symptoms in patients with POP arises from mechanical bladder outlet obstruction (BOO) which is caused by increasing in the urethra-vesical angle and hence kinking the urethra⁴.

Women with POP usually complain of vaginal bulge and/or local pressure symptoms, but they often report some symptoms that affect the urinary, bowel or sexual function. Some women who have undergone mid-urethral sling (TOT or TVT) surgery for stress incontinence may complain of worsening of their urinary symptoms. Women who report new urinary symptoms after POP surgery are less likely to be satisfied with surgery in spite of objective cure according to the pelvic organ prolapse quantification staging system (POP-Q staging) or cysto-metro-gram. Therefore, the absence of a bulge or SI at postoperative pelvic examination does not accurately reflect the postoperative restoration of pelvic floor function and patient satisfaction^{5,6}.

The aim of surgery in vaginal prolapse is to relieve the associated urinary, sexual symptoms and improve the patient's quality of life as some studies reported the improvement in all aspects of urinary, bowel and sexual function following surgery for POP.⁵

Pelvic organ prolapse is the commonest gynecological surgery worldwide, but there are no accurate or clear epidemiological studies about the incidence and prevalence of POP. Embarrassment by a large number of patients for clinical examination accounts for higher percentage of patients in the

community. In a WHI (woman's health initiative) study, POP was reported in 41% of parous women at age between 50 to 59 years. This includes cystocele (34%), rectocele (19%) and the uterine prolapse in 14%. About two-thirds of the procedures are performed in women younger than 60 years, and the prolapse recurrence rate is about 13%. Reoperation for the recurrent prolapsed vagina is usually performed within 5 years following the primary surgery⁷.

The pelvic organs are supported and maintained by the interaction between the pelvic floor muscles, connective tissue and the vaginal wall for their normal physiology. Many factors are involved in the failure of this support. These include; genetic predisposition, vaginal wall weakness, loss of pelvic floor muscle supports, and the loss of connective tissue attachments between the vaginal wall and the pelvic floor muscles and pelvic viscera⁸.

Multiparity, vaginal delivery, older age, race (White and Hispanic), chronic high intra-abdominal pressure, obesity and connective tissue disease are among the predisposing factors for pelvic organ prolapse^{9,10,11}.

The most common type of vaginal prolapse is the anterior wall one. Cystocele is classified as either paravaginal (central displacement), midline (central distention), transverse (apical) or mixed.⁷

The Pelvic Organs Prolapse Quantification System (POP-Q) which was designed by the International Continence Society is based on the position of the distal portion of the prolapsed vagina during straining. Their stages range from 0 (when no

prolapse is demonstrated) to the stage IV (complete vaginal eversion)^{12,13}.

So the prolapse in each segment is measured relative to the hymen, which is a fixed anatomic landmark that can be identified consistently. Accordingly, it is stage one when the leading prolapsed part is more than one centimeters above the hymenal ring; stage two when it is between one centimeter above and one centimeter below the hymenal ring; stage three when it is more than one centimeter below the hymenal ring but less than total vaginal length (minus two centimeters), and stage four if it is more than -2 cm below the hymenal ring¹³.

The degree of prolapse has traditionally been the main determinant in the management of POP with less attention given to symptom severity and its impact on quality of life. However, these are important considerations in the management of women with POP. Many women with POP are asymptomatic and don't need treatment. When prolapse is symptomatic options include conservative management and surgery. Surgical strategies for prolapse can be categorized broadly by reconstructive and obliterative techniques.

Globally, about half of the parous women have some degree of clinical prolapse, and 10–20% are symptomatic. Symptoms associated with POP like local bulge, pressure and dyspareunia are the most common presenting symptoms, but variable degree of obstructive and irritative urinary symptoms or UTI may accompany the condition. The severity of the symptoms is directly related to the prolapse degree^{14,15}.

Management depends on the patient's age, symptoms, prolapse degree, and comorbidities. Asymptomatic patients with vaginal prolapse do not require any treatment. Conservative and or surgical treatments are required in symptomatic patients, and the treatment methods usually depend on the degree of prolapse, symptoms and patient's preferences. Conservative management is appropriate for risky patients for surgical complications and if recurrence is anticipated. The treatment options include regular pelvic floor muscles exercise, vaginal pessaries and hormonal therapy. 7 Surgery is usually performed in case of conservative management failure or patient's choice, which are either reconstructive, compensatory or obliterative. Many vaginal or abdominal surgical options (with or without graft) have been introduced⁷.

The reconstructive surgery means using the patient's endogenous supportive tissue, the compensatory surgery is by using the synthetic mesh or biological graft and the obliterative surgery by closing the vagina partially or totally¹⁶.

The aim of the study is to study the urinary symptoms outcome after anterior colporrhaphy in patients with POP.

PATIENTS AND METHODS

A prospective cross-sectional study of 100 patients subjected to anterior colporrhaphy for cystocele were included by using non-probability convenience sampling method. The study was conducted at the departments of urology and gynecology between March, 2018 and December 2019 at Azadi Teaching Hospital and Duhok

Maternity Hospital, Duhok, Kurdistan Region- Iraq. The study plan was approved by the Research Ethics Committee, Directorate of Health of Duhok. The written informed consent was signed by the participants.

Inclusion criteria: any patient with any degree of cystocele and candidate for anterior colporrhaphy surgery.

Exclusion criteria: concomitant rectocele, recurrent prolapse and patient with known urological conditions e.g. stones.

A questionnaire was designed to obtain information prior to surgery. All patients had undergone clinical history regarding age, occupation, past medical, surgical, obstetric and gynecological history. Information about urinary symptoms was taken before and after surgery.

General and gynecological clinical examinations were performed based on the (POP-Q system). General investigations; including general urine examination, culture and sensitivity testing, complete blood count, random blood sugar and ultrasonography were performed. The standardized surgical procedure for vaginal prolapse is performed by different surgeons. The surgical procedures were performed under either general or regional (Spinal) anesthesia. All patients were given prophylactic antibiotic (Ceftriaxone vial 1 g intravenously) at the induction of anesthesia and they were placed in lithotomy position. A metallic urethral catheter is introduced to empty the bladder and to identify the bladder lower limit. An inverted 'T' incision is made on the anterior vaginal wall by horizontal incision below the bladder edge and a vertical incision from the midpoint of the transverse incision up to 1.5 cm below the external

urethral meatus. The triangular vaginal flaps including the fascia on either sides are separated from the endo-pelvic fascia covering the bladder. The line of cleavage is vesicovaginal space. The bladder with the covering endo-pelvic fascia (pubo-cervical) is now exposed as the edges of the vaginal wall retracted laterally. The vesico-cervical ligament is held up with Allis tissue and divided. The bladder is then pushed up by blunt dissection until the peritoneum of the utero-vesical pouch became visible to expose the vesico-cervical space. Hemostasis is secured by electro-cauterization. The pubo-cervical fascia is plicated by interrupted sutures using vicryl suture¹. The lowest stitches will include the cervical tissue to close the hiatus through which the bladder herniates. The redundant parts of the vaginal wall are excised on either side or are opposed by interrupted sutures with vicryl 0 round needle. Cystoscopy is done to make sure that the bladder and urethra are not injured. A Foley catheter gauge 16 Fr is introduced for 12–24 hours. Vagina is tightly packed with vaseline soaked gauze.

The patient is kept overnight in ward and discharged after taking the gauze and Foley catheter out to ensure urine passage. Oral anti biotic (Metronidazole 500mg three times a day and Amoxicillin capsule 500mg three times a day) with analgesia are given for 1 week.

One week postoperatively the patient is re-evaluated for systemic and local symptoms such as; patient satisfaction, fever and the site of wound, the degree of improvement, the urinary symptoms, as pain, vaginal discharge and bleeding, advice patient for vaginal hygiene and abstinence of sexual activity for 2 months.

Subsequently patients were followed up within 6–12 months for systemic and local evaluation including the urinary symptoms.

The Statistical Package Software (SPSS) system of Version 23 through the adoption of descriptive statistical data analysis approach as (frequency, percentage, mean and standard deviation) was used to analyze the data. P-value < 0.05 is regarded as significant. The inferential statistical data analysis approach as Chi-square for the advantage of the study was used.

RESULTS

A total of 100 patients with variable degree of cystocele who needed anterior colporrhaphy were included in this study.

The Patients demographical data are shown in table 1 The age ranged from 24-65 years with mean of 39.42 ± 8.77 . Ninety percent (90%) of patients were house wives and 94 (94%) of patients were married. The body weight of 39% of patients falls in the obese group with mean BMI of 28.60 ± 4.92 . (There were no Unmarried in the study).

Table 1: Characteristics of the study sample (n=100)

Patients demographic data		No.(%)	Mean (\pm SD)
Age	24-28	6 (6)	39.42 ± 8.77
	29-33	23 (23)	
	34-38	27 (27)	
	39-43	16 (16)	
	44-48	11 (11)	
	49-53	10 (10)	
	54-58	3 (3)	
	59-65	4 (4)	
Marital status	Married	94 (94)	
	Widowed	5 (5)	
	Divorced	1 (1)	
occupation	Housewife	90 (90)	
	Employed	10 (10)	
BMI	Underweight	1 (1)	28.60 ± 4.92
	Normal weight	23 (23)	
	Overweight	37 (37)	
	Obese	39 (39)	

Eighty percent of patients have negative medical history, sixty-nine percent have

negative surgical history and drug history was negative.

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Table 2: Distribution according to health-related history:

	Health-related history	No (%)
Medical history	Negative	80 (80)
	Diabetes mellitus	8 (8)
	Hypertension	6 (6)
	Asthma	3 (3)
	Diabetes mellitus and Hypertension	3 (3)
	Total	100 (100)
Surgical history	Negative	69 (67)
	Cesarean section	25 (25)
	Hemorrhoidectomy	4 (4)
	Umbilical herniotomy	2 (2)
	Hysterectomy	2 (2)
Total		102 (100)

The parity of patients was ranged from 2 to 12 with a mean of 5.57 ± 2.036 . Sixty-four percent (64%) of them were grand multi. All patients had a vaginal delivery, and 25% had both vaginal delivery & Cesarean

section. Sixty-three percent (63%) of patients gave history of difficult labor. Seventy-four percent of the patients were within the fertile group. Most of the patients 79% had second degree prolapse.

Table 3: Distribution of the patients according to obstetric and gynecological history

Obstetric and Gynecologic Data	No (%)	Mean (\pmSD)
Parity	2-4 Multi gravida	36 (36)
	5 -12 Grand multi	64 (64)
Mode of delivery	VD only	75 (75)
	VD & CS	25 (25)
Difficult labor	Yes	63 (63)
	No	37 (37)
Hormonal status	Fertile	74 (74)
	Pre menopausal	7 (7)
	Post menopausal	19 (19)

In spite of pressure symptom being the main presenting symptom, 88% of patients had associated urinary symptoms in form of SI 70%, urgency 61%, frequency 59%, nocturia 56% and urge incontinence (UI) 54%. After surgery, SI was 20%, urgency 26%, frequency 26%, nocturia 24% and urge incontinence 18 %.

Feeling of vaginal pressure symptom improved in (93%) of patients and dyspareunia in (60%).

The urinary symptoms were improved on basis of clinical history and examination after surgery, SUI (71.4%), Urge incontinence (67%), frequency (59%), Urgency (57.3%) and Nocturia (57.1%).

The obstructive urinary symptoms of hesitancy and poor stream were in 3 patients preoperatively.

Thirty-five percent (35%) of patients had UTI preoperatively and the number decreased to 25% post operatively.

Table 4: Patient distribution according to the pre and post anterior colporrhaphy history

Urinary symptom	Pre-operative		Post-operative		P value
	N	(%)	N	(%)	
Stress incontinence	70	(70)	20	(20)	≤ 0.001*
Urgency	61	(61)	26	(26)	≤ 0.001*
Daytime frequency	59	(59)	26	(26)	≤ 0.001*
Nocturia	56	(56)	24	(24)	≤ 0.001*
Urge incontinence	54	(54)	18	(18)	≤ 0.001*
Hesitancy	3	(3)	0	(0)	0.246**
Poor stream	3	(3)	0	(0)	0.246**
Intermittent stream	1	(1)	0	(0)	1.000**
Terminal dribbling	0	(0)	0	(0)	NA
UTI	35	(35)	25	(25)	0.123*
Burning on micturition	21	(21)	11	(11)	0.054*
Dyspareunia	60	(60)	24	(24)	≤ 0.001*
Feeling pressure or vaginal bulge	88	(88)	7	(7)	≤ 0.001*

* Chi-Square. ** Fisher Exact Test.

Two patients developed temporary acute urinary retention post operatively and relieved 2 days later after re insertion of the Foley catheter.

DISCUSSION

Cystocele is the most common presentation in POP. It is one of the most common indications for gynecological surgery (beside hysterectomy and ovarian pathologies)¹⁷.

The prevalence of POP is about 8% of female population and recent studies estimate a woman has a 12.6% risk of undergoing surgery for prolapse. 18

The average age of the study population was 39.4± 8.7 (range 24–65) years, and BMI measured 28.60±4.92 and most cases were within the obese category (39%). The

average parity was 5.57± 2.036 (range 2–12). High percentage of second-degree vaginal prolapse was compared to other low parity community and low percentage of post-menopausal status 19%.

A study by Akeme and Segni (2012) have shown similar results of mean age 42.43 ± 10.4 years and mean parity of 6.5± 2.64. Results were found in other studies as revealed by Levy et al. (2017), in which the mean age 62.0±7.9 (42–83) years, and BMI was 27.33 (18–41). Mean parity was 5.6 ± 3.7 (1–14) and higher percentage of the third-degree vaginal prolapse^{19,20}.

De Boer et al. (2010) have shown different results, in which the Mean age 61 ranged from (32-93), mean parity 2 ranged from (2-8), BMI 26, and post-menopausal status 81%²¹.

In our study, the patients were younger, symptomatic earlier and with higher parity than in other studies, and pelvic floor muscle damage during the second stage of labor has been attributed. The higher level of pelvic trauma secondary to high parity was documented in this study (63% had history of difficult labor).

In De Boer et al. (2010) study, the patients mean age were post-menopausal, emphasizing the role of estrogen deficiency as a risk factor for POP which was independent of parity (ie vaginal delivery)²¹.

The major finding of this study showed a highly significant ($p \leq 0.001$) improvement in the urinary symptoms (SI and irritative voiding symptoms) in women who underwent anterior colporrhaphy. The results have shown that SI improved from 70% to 20% post-operatively, urgency from 61% to 26%, daytime frequency from 59% to 26%, nocturia from 56% to 24% and urge incontinence from 54% to 18%.

De Bore et al. 2010 and Malinowska et al. 2019 showed their similar results of significant improvement of urinary symptoms post operatively^{4,21}.

Over active bladder (OAB) which is a combination of bladder irritability symptoms, is known to be a prevalent disorder that increases with age (21% of women older than 70 have OAB symptoms) and has a profound impact on quality of life^{22,23}.

OAB is strongly coexistent in patients with anterior vaginal wall defect of grade II and higher (POP-Q system), as described by Malanowska et al (2019) and 39.1% of them will have OAB. This supports the concept that local anatomical defect like vaginal prolapse may increase the bladder

irritability symptoms and prolapse correction improves it, as community-based studies showed that the prevalence of OAB symptoms is higher in patients with POP and its surgical correction results in improving the OABsymptoms^{4,21}.

In this study, 5% of patients developed frequency and urgency, and 2 patients developed urge incontinence post operatively, Segal et al.⁵, (2012) stated that anterior colporrhaphy can lead to SI, overactive bladder symptoms, and even urinary retention as extensive dissection of the anterior vaginal wall can cause denervation injury to the urinary bladder⁵.

SI may coexist or be caused by POP, and its surgical correction may relieve or ameliorate SI. On the other hand, SI may occur after POP correction due to straightening of the already kinked urethra and over straightening of the urethro-vesical angle by cystocele repair, which unmask an occult SI. Hence, urodynamics is important to exclude other causes for SI as diabetes mellitus, neurological diseases as cerebrovascular accident (CVA) and drugs. Nineteen patients in our study continued to have SI postoperatively. SI may improve or worsen after POP surgery. Roovers et al 2006 showed an increased rate of SI of 6% in the traditional anterior colporrhaphy, while a study by Lensen et al. (2012) has reported that 39% of the patients with pre-operative SI were cured after POP surgery. However, de novo SI appeared in 22% of the patients without pre-operative SI^{24,25}.

This study showed a significant decrease in urinary symptoms like frequency, urgency, nocturia, urge incontinence, and a non-significant decrease in hesitancy and poor stream.

UTI (Cystitis) results in this study were non-significant in association to anterior colporrhaphy. Albo et al. (2007) mentioned that UTI developed in 33.6 % of women within 3 months after surgery. No specific association with UTI and prolapse was seen²⁶.

Reducing and repairing prolapse may assist in reducing post-void residual volume (PVR); a well-established factor in the development of UTI, it is likely that surgical treatment of prolapse alone will be insufficient to prevent UTI. Hamid et al (2014) concluded that two factors were found to increase the risk of UTI post-surgery, namely urethral catheterization and incomplete bladder emptying, in spite of the use of antibiotics²⁷.

Although 11% of patients were diabetics and 6% of them complain of irritative urinary symptoms preoperatively, and 5% postoperatively, and one patient has UTI pre and post-surgery. The results showed that diabetes mellitus is not a risk factor for UTI in the study group.

Feeling of pressure or fullness in the pelvic area seen in 88% pre-operative, and became 7% post operatively. It was the most common presenting symptom of prolapse and highly significant $p \leq 0.001$; like other studies by Malinowska et al., 2019, pressure feeling in 96% became 2% post operatively⁴.

Women with POP complain of vaginal bulge or pressure. They often report other coexisting pelvic symptoms such as irritative bladder symptoms and SI. The absence of a bulge during a postoperative pelvic examination does not accurately reflect postoperative patient satisfaction because of the continuous presence of

urinary symptoms or dyspareunia after surgery⁴.

In this study dyspareunia decreased from 60% pre-operative to 24% post operatively ($p\text{-value} \leq 0.001$). In another study carried out by Espuña et al. (2010), pre-operative dyspareunia improved from 98% to 15% postoperatively, which means correction by POP surgery has a positive impact on the sexual function. Satisfaction in most patients may be due to relief of feeling vaginal bulge, improving self-image, and absence of pain, while Nguyen (2008) found that dyspareunia is uncommon complication after anterior colporrhaphy, occurred in 9% of patients postoperatively, and was non-significant^{28,29}.

In conclusions pelvic organ prolapse has a direct effect on the urinary voiding symptoms but not UTI and their severity depend on the degree of the prolapse and there is a significant improvement after anterior colporrhaphy. Multi parity at young ages is directly related to the POP grade and subsequent urinary symptoms.

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پوخته

دروست کرنا زێ بەرەف دەرفەیی لەشی می: هەلسەنگاندنا دەرنەنجامین نیشانین میزەرۆی بەری وپشتی

نشترەگرەیی

پێشەکی: دروست کرنا زێ بەرەف دەرفەیی لەشی می ئەو دەروست کرنا ئەو ماسولکین زێ ئەوین هاتینا خاری بۆ هاریکاری و مومکرنا میزدانکی، هەر وەسا تیتە هەژمارتن وەک نشترەگرەییەک لاسایکەر. دەمی هاتنا خاری میزدانکی گریدای بیت ب هاتنا خارا میزی بی کۆنترۆل و تیکچوونا ئەرکی میزتن، فان نیشانان باشتەر لی تین پشتی نشترەگرەری. هەر وەسا دبیت ئەف نشترەگرەری بیتە ئەگرەری نیشانین میزەرۆی ژبەرگەلەک دابەشکرنا زێ بەرەف دەرفەیی لەشی می کو ئەو ژێ دبیتە ئەگرەری تیکچوونا دەمارین میزدانکی.

رێکین فەکولین: فەکولینەکا بەرفەرەهە هاتە کرن ب تۆمارکنا (100) نەخۆشان ئەوین هاتینە رهوان کرن بۆ نشترەگرەریا دروست کرنا زێ بەرەف دەرفەیی لەشی می. ئەف فەکولینە هاتە کرن نافبەرا هەیفە ئادارا 2018 تا هەیفە تەباخ 2019 ل بەشی ئافرەت و میزەرۆی ل نەخۆشخانا ئازادبیا فیکرکری و ل نەخۆشخانا ئافرەت و زارۆک بوونی ل باژیری دهوک، هەریمە کوردستانی/عیراق.

ئەنجام: ژ (100) نەخۆشین ئافرەت ئەوین هاتینە رهوان کرن بۆقی نشترەگرەریا، ئەوین تەمەنی وان نافبەرا (24-65) سالیی دا بوو. نافەندا ژمارا تەمەنی (42.39) سالیی دا بوو. نافەندا ژمارا زارۆکین وا (5.57) بوو. ئیندیکسا پارستەیا لەشی (6.28). ژ وان نەخۆشان کو (75٪) زارۆک بوونا وان یا تۆرمالی بوو، بەلی (25٪) دگەل نشترەگرەریا قەیسەری بوو. شروقه کرنا ئاماری دیار کر کو نیشانین میزەرۆی ب شیۆهەیکی بەرچاڤ باشتەر لی هاتن بۆ ماوهی (6-12) مانگان پشتی نشترەگرەری وەک هاتنا خارا ژبەرەف دەرفەیی لەشی می (92٪)، هاتنا خارا میزی بی کۆنترۆل (4.71٪). بەلی پا ئەفی نشترەگرەری چ کاریگرەری سەر هەودانا ئەندامین میزەرۆی نە بوو (5.28٪).

دەرنەنجام: ئەفی فەکولینی دیار کر کو ئەو ئافرەتین نشترەگرەری بۆ هاتە ئەنجام دان نیشانین وان میزەرۆی و هاتنا خارا میزی بی کۆنترۆل ب شیۆهەیکی بەرچاڤ باشتەر لی هاتن و هەر وەسا ژیانانە ساخی باشتەر لی هات.

الخلاصة

تصنيع جدار المهبل الامامي: تقييم النتائج فيما يتعلق بالأعراض البولية قبل وبعد الجراحة

الخلفية والأهداف: ان عملية تصنيع او تعديل جدار المهبل الامامي تعني تصنيع الطبقة الليفية العضلية للجدار ودعم اسفل المثانة. ان هذا الاجراء يعد طريقة تقليدية لأصلاح ترهل الجدار وخاصة عندما يكون متزامنا مع أعراض سلس البول وتهيج المثانة. ومن الممكن أحيانا أن تؤدي هذه العملية الى أعراض ومشاكل متعلقة بالجهاز البولي التناسلي نتيجة التداخل الجراحي وما يسببه من اصابة الاعصاب المزودة للمثانة.

طرق البحث: أجريت دراسة مستعرضة لمتابعة (١٠٠) مريضة تم إحالتهم الى مستشفى أزاوي التعليمي ومستشفى النسائية والتوليد في دهوك اللواتي يحتجن عملية تصنيع جدار المهبل الامامي للفترة الزمنية من الاول من شهر اذار ٢٠١٨ لغاية الاول من شهر كانون الأول ٢٠١٩ في مدينة دهوك، إقليم كردستان/العراق.

النتائج: أظهرت النتائج ان متوسط العمر هو (٤٢,٣٩) عاماً. وكان متوسط عدد الولادات (٥٧,٥) و مؤشر كتلة الجسم (٢٨,٦٠). فيما يخص الولادات الطبيعية كانت النسبة (٧٥٪) و (٢٥٪) منهم كانت الولادات لديهن مشتركة طبيعية مهبلية وعملية قيصرية. وقد اظهرت النتائج تحسن واضح وملحوظ للأعراض المصاحبة لتدلي جدار المهبل والمثانة بعد العملية الجراحية وإصلاح التهدل خلال الفترة من ٦ الى ١٢ شهرا بعد العملية. وكانت نسبة التحسن للأعراض كالتالي: للواتي لديهن إحساس إنتفاخ داخل المهبل (٩٢٪)، سلس البول (٧١,٤٪)، آلام داخل المهبل وعسر الجماع (٦٠٪). في حين لم يكن هناك اي تحسن في الاعراض للواتي لديهن التهاب المسالك البولية (٢٨,٥٪) و اعراض انسداد المسالك البولية.

الاستنتاج: أظهرت هذه الدراسة أن النساء المصابات بأعراض بولية متهيجة والسلسل البولي وأعراض الجهاز التناسلي سيظهرن تحسنا ملحوظا بعد إجراء العملية الجراحية وبالتالي تحسين نوعية الحياة.