Comparison of Incidence of Anal-Rectal Syndromes before and after Pelvic Surgery by Routine Methods (Correction of Rectocele, Correction of Cystocele, Perineorrhaphy) in Imam Khomeini Hospital, Tehran-Iran.

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Abstract: Uncontrollable excretion of the gas, uncontrollable excretion of lax or hard excrement, weakness in excretion of entire excrement, constipation and need to help the anus or vagina in order to excrete are the set of anal-rectal syndromes which have unpleasant effects on self-confidence, individual and social relationships, marriage and business. Pelvic injuries from delivery are the major cause of these difficulties in women. Because of the qualification of these syndromes and unpleasant effects of them its incidence is estimated lower than the real rate. This study was done to examine the anal-rectal syndromes and rate of its recovery at patients with diagnosis of pelvic organs prolapse who done surgery considering the high incidence of these syndromes and large quantity of corrective surgeries. This study performed on the 22 women that have corrective surgery of pelvic organs prolapse by routine method (rectocele correction**,** perineorrhaphy with/without cystocele correction) in 2011 at Imam Khomeini Hospital. The criterion of deviation includes patients with inner difficulties which cause the surgery can not be done, patients who were pregnant or were going to be pregnant, women who have delivery during last year, patients with clear fault of anal sphincter and digestive chronic disease (IBD, IBS). The patient was examined from the viewpoint of pelvic disorder (with criterion of PAP-Q) and the result was recorded. Also individual data of every patient about height, weight, number of natural delivery, anal-rectal and urine syndromes was recorded at prepared questionnaires. These data was recorded as the control group and the pelvic examination of every patient were done again after 3 months from surgery and the questionnaires were completed. These data was examined and compared with the previous data as the presence group, considering the correction of disorder of pelvic prolapse in the form of decrease of pelvic anatomic disorder stage (with PAP-Q criterion) and recovery rate of an rectal syndromes, disappearance of previous syndromes or decrease in tormenter rate. Mean age of the patient was 47.55 10. There were 4 patients (%18.2) at the age group of 25-40 year old, 13 patients (%59.1) at the age group of 41-55 year old and 5 patients (%22.7) at the age group of over 55 year old. The frequency rate of anal-rectal syndromes, urine system disorders and general syndromes after corrective surgery of pelvic organs prolapse disorder were decreased overall after the surgery. Although, the decrease in the frequency of urinating at short intervals, feeling of presser on the lower part of the abdomen and prolapse or observable mass were statistically significant. Findings of the study showed that rate of recovery in the anal-rectal syndromes, urine system disorders and general syndromes after the corrective surgery of pelvic organs prolapse disorder at the different age groups were the same, except the pain at the genital part or lower part of the abdomen which its recovery was significantly more at the age group of 25-40 year old. According to the findings of study, the rate of pelvic organs prolapse anatomic correction in the patients of the study base on the POP-Q system was statistically significant. Also according to the findings of present study the recovery rate of the anal-rectal syndromes, urine system disorders and general syndromes after corrective surgery of the pelvic organs prolapse disorder arising from the number of delivery there weren't vary. This present study shows that corrective surgery of the pelvic organs prolapse recovers the anatomic disorders of the patients.

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Introduction

Pelvic organs prolapse with uncontrollable urinate, uncontrollable excretion of excrement, urine and excretory disorders form a connected conditions that are named as a scoria pelvic disorders. These disorders have common risk factors and often are seen with each other's [1, 2].

Anal-rectal syndromes include set of syndromes like uncontrollable excretion of the gas, uncontrollable excretion of lax or hard excrement, weakness in excretion of entire excrement, constipation and need to help the anus or vagina in order to excrete which have unpleasant effects on self-confidence, individual and social relationships, marriage and business. They are spread about in women than men [3].

Pelvic injuries from delivery were known as the major cause that prepares the women to these syndromes. Widespread of these syndromes is estimated lower than the real rate because of their qualification and unpleasant effects. Widespread of the syndromes is estimated %1-16 among women which increases with increase in age. Widespread of these syndromes in women that have uncontrollable urinate and pelvic organs prolapse show the mechanism of common pathology of these states. The more common known mechanism is injury of nerves and muscles from vaginal delivery that causes prolapse of the pelvic organs which results urine and anal syndromes. Prolapse of the pelvic organs is the common anatomic disorder which involves %31-41 of women. Many of these patients do different corrective surgery annually expecting that correction of the disorder recovers the rectal syndromes and the other syndromes [4].

Considering to the high widespread of the syndromes and the great number of corrective surgeries, we decided to set a study to inspect the anal-rectal syndromes and rate of the recovery at the patients who are decided to do surgery with diagnosis of the prolapse of the pelvic organs; and also to inspect the rate recovery after the surgery and the effects of the corrective surgery at the recovery of these syndromes.

Materials and Methods

This study performed on the 22 women that have corrective surgery of pelvic organs prolapse by routine method (rectum correction, perineorraphy with/without cystocele correction) in 2011 at Imam Khomeini Hospital. The recovery of the anorectal syndromes was the expected result. The rate of the recovery of the anorectal was evaluated by the questionnaire and the patients considered healthy that their previous anorectal syndromes were disappeared or the rate of its tormenting has been decreased.

Criterion of deviation includes patients with inner difficulties which cause the surgery cannot be done, patients who were pregnant or were going to be pregnant, women who have delivery during last year, patients with clear fault of sphanecter anal and digestive chronic disease (IBD, IBS). Phone number of the patients was recorded in order to prevent from the missing of them as a samples and if they do not contact the researcher contacts with them 3 months later. The patients accept to participate in this study after explanation of the researcher and knowing the quality of the study.

Also written letter of satisfaction was taken from them. The participants were examined in viewpoint of the pelvic disorder (with PAP-Q criterion) by two persons (that did not know the quality of doing the study) and the result of the examination was recorded. Also individual data of every patient about height, weight, number of natural delivery, anal-rectal and urine syndromes was recorded at prepared questionnaires. These data was recorded as the control group and the pelvic examination of every patient were done again after 3 months from surgery and the questionnaires were completed. These data was examined and compared with the previous data as the presence group.

The rate of the anatomic disorder was evaluated by two assistants who did not know the process of the study in order to close the study. In cases that there was not basic and meaningful difference in the evaluation of the assistants so as the patient was put in two stages in viewpoint of the harshness of the pelvic disorder, the third assistant examined the patient. Correction of the pelvic anatomic disorder (in form of examination recovery and PAP-Q criterion) and recovery of anal-rectal syndromes of the patients was the expected result after the interference.

The correction of disorder of pelvic prolapse in the form of decrease of pelvic anatomic disorder stage (with PAP-Q criterion) was considered as one stage at least. (PFDI-short20 questionnaire was used in this study)

Results and Findings

22 persons from 48 persons that had a corrective surgery of pelvic organs prolapse was examined again and were evaluated in viewpoint of anorectal syndromes recovery. Medium age of the patients in the study was 47.55 10, among them there were 4 persons (%18.2) at age group of 25-40, 13 persons (%59.1) at age group of 41-55 and 5 persons (%22.7) at age group of over 55 years (table 1).

According the findings of the study the rate of anal-rectal syndromes frequency, urine system disorders and general syndromes after corrective surgery of pelvic organs prolapse were decreased overall,

although the decrease in the frequency of urinating at short intervals, feeling of pressure on the lower part of the abdomen and prolapse or observable mass were meaningful from the viewpoint of statistics (P. value 0.05) (table 2).

Table 3 shows the rate of anal-rectal syndromes recovery, urine system disorders and general syndromes after the corrective surgery of pelvic organs prolapse disorders on the examined patients. The most rate of recovery related to syndromes of pressing around the anus for excretion (%50.1), feeling of pressure at lower part of the abdomen (%50), feeling of weight on the pelvic part (%50), feeling of pain on excretion (%45.5), to feel cyst has not evacuated completely (%45.5), urination at short intervals (frequency) (%45.5), to feel excretion has not done completely at the end of the excretion (%40.9), prolapse or observable mass (%40.9) and feeling of pain on the genital part or lower part of the abdomen (%40.9). The less rate of recovery related to uncontrollable excretion of hard excrement (%13.6), uncontrollable excretion of lax excrement (%18.2), rectum prolapse from anus on excretion or after it (%18.2) and urine evacuating hardly (%18.2).

Findings of the study showed that recovery rate in the anal-rectal syndromes, urine system disorders and general syndromes after the corrective surgery of pelvic organs prolapse disorder at the different age groups were the same, except the pain feeling at the genital part or lower part of the abdomen which its recovery was significantly more at the age group of 25-40 year old from the viewpoint of statistics (P. value 0.05) (table 4).

According to the findings of the study the anatomic correction rate of the pelvic organs prolapse among the patients of the study was meaningful from the viewpoint of statistics according to POP-Q system (P. value 0.05) (table 5). From viewpoint of statistics rate of anal-rectal syndromes recovery, urine system disorders and general syndromes after corrective surgery of pelvic organs prolapse disorder are shown in table 6 base on body mass index (BMI) which in this way recovery rate at feeling of pressure in the lower part of abdomen was more at patient with body mass index less than 25 (P value 0.05).

Also according the findings of the study rate of anal-rectal syndromes recovery, urine system disorders and general syndromes after the corrective surgery of pelvic organs prolapse disorder was not different base on the number of natural delivery (P. value 0.05) (table 7).

Discussion

Pelvic organs prolapse is one of the more widespread problems that may involve %50 of women after natural delivery. Pelvic organs prolapse is often in company with set of urine, rectal and sexual disorders [5]. Problem in uncontrollable excretion of the gas and excrement are the common complaint of the women with pelvic organs prolapse disorder. Urogynecologic surgeries are one of the basic and important therapeutic methods. Risk surgery among women with pelvic organs prolapse is about %11 that nearly 1/3 of these patients will need to do surgery again [6]. Often major aim of pelvic organs surgeries is simultaneous correction of anatomic disorders, decrease of the syndromes and syndromes come with prolapse [4].

Base on the findings of the study frequency rate of anal-rectal syndromes, urine system disorders and general syndromes after corrective surgery of pelvic organs prolapse disorder were decreased that this was meaningful from viewpoint of statistics about frequency of pain on excretion, pressure to the prolapse region for starting urination or completing it, urination at short intervals, pressure feeling on lower region of abdomen and prolapse or visible mass.

On the study of Gustilo et al. [3] that performed on 106 women with pelvic organs disorders (with intensity 2 on POP-Q points which included rectocele), corrective surgery including correction of the rectocele was down on 99 persons. Three kinds' corrective surgeries were done accidentally including colporrhaphy (33 persons), correction of rectocele region (37 persons) and correction of rectocele along with putting pig grapht (29 persons). The patients were examined in respect of anal-rectal syndromes after 1 year and 6 months from the surgery. In before surgery examination %80 of first surgery group, %85 of second surgery group and %97 of third surgery group had excretion disorder and uncontrollable excretion of the gas and excrement that in after surgery examination after 1 year and 6 months they have decreased in %32 from first group, %35 from second group and %21 from third group.

In this study the most recovery rate relates to syndromes of pressuring around the anus for excretion (%50.1), pressure feeling in lower part of abdomen (%50), weight feeling in pelvic region (%50), pain on excretion (%45.5), to feel cyst has not evacuated completely (%45.5), to urinate at short intervals (%45.5), to feel excretion has not done completely (%40.9), prolapse or visible mass

(%40.9) and feeling of pain on the genital part or lower part of the abdomen (%40.9).

In this study women with pelvic organs prolapse that had routine correction surgery of pelvic organs prolapse were examined. Findings of the study indicated anatomic disorders recovery of the patients on surgeries and severe decrease of prolapse (base on POP-Q system). In other word, prolapse intensity on anterior, posterior and apex parts has been decreased significantly in comparison with the before of the surgery in regard to statistics. Study of Tegerstedt et al. [7] shows long-lasting results of pelvic organs prolapse surgeries in regard to recovery and after surgery consequences on 269 patient women with surgery at 1986-1988 intervals. Subjective cure rate of patient was %46 (n=59) and their subjective rate %56 (n=72).

The findings indicated that in examination of cure success in pelvic organs prolapse surgeries, the anatomic results were not sufficient and lateral consequences, remind syndromes, presentations and new syndromes must be examined, also patients do not have satisfactory from recovery of the syndromes always. Findings of Pigot et al. showed that surgery operation effects on qualification of life and decrease of constipation difficulties which this case is apart from anatomic correction of consequences [8].

Conclusion

The results of present study showed that pelvic organs prolapse corrective surgery is associated with recovery of anatomic disorders in patients. Also, there was reducing symptoms protrusion or visible masses, frequency of urination and feeling pressure in lower abdomen in patients of present study.

Table 1: Demographic data of the patients (n=22)

Mean Age (Year)	47.55 10
Mean SD	(27-63)
Age	
25-40	4(%18.2)
41-55	13(%59.1)
Over 55	5(%22.7)
Mean of the Body Mass Index (BMI)	27.36 4.6 (20.1-37.1)
Mean SD (Kg/M^2)	
Record Of The Hysterectomy	3 (%13.6)
High Blood Presser	4 (%18.2)
Number of Delivery (Median)	4(1-11)

Table 2: frequency distribution anal-rectal disorders, urine system disorders and general syndromes before and after the corrective surgery of pelvic organs prolapse disorders

Kind Of Disorder	**Before Surgery** (N=22)	**After Surgery** (N=22)	**p. Value**
rectal-pelvic disorders pressing around the anus for excretion	13 (%59.1)	9 (%40.9)	*P=0.344*[a]
much pushing for excretion	11 (%50.0)	7 (%31.8)	*P=0.344*[a]
to feel excretion has not done completely	14 (%63.6)	9 (%40.9)	*P=0.267*[a]
uncontrollable excretion of hard excrement	4 (%18.2)	4 (%18.2)	*P=1.000*[a]

uncontrollable excretion of lax excrement	4 (%18.2)	6 (%27.3)	*P=0.754*[a]
uncontrollable excretion of gas	15 (%68.2)	15 (%68.2)	*P=1.000*[a]
pain on excretion	12 (%54.5)	5 (%22.7)	*P=0.065*[a]
sever and urgent need for excretion	10 (%45/5)	10 (%45/5)	*P=1.000*[a]
rectum prolapse from anus on excretion or after it	6 (%27.3)	3 (%13.6)	*P=0.375*[a]
Urine System Disorders			
to feel cyst has not evacuated completely	14 (%63.6)	8 (%36.4)	*P=0.109*[a]
pressing the prolapse area for beginning or completing the urination	9 (%40.9)	3 (%13.6)	*P=0.070*[a]
urination at short intervals (frequency)	16 (%72.7)	9 (%40.9)	*P=0.039*[a]
trickle of urine on need for urination	14 (563.6)	11(550.0)	*P=0.549*[a]
trickle of urine on sneezing, gaping or smiling	8 (%36.4)	7 (%31.8)	*P=1.000*[a]
less trickle of urine (drop by drop)	13 (%59.1)	12 (%54.5)	*P=1.000*[a]
urine evacuating hardly	7 (%31.8)	4 (18.2)	*P=0.375*[a]
General Syndromes			
feeling of presser on the lower part of the abdomen	16(%72.7)	7(%31.8)	*P=0.012*[a]
feeling of weight on the pelvic part	15(%68.2)	12(%54.5)	*P=0.549*[a]
prolapse or observable mass	11(%50.0)	4(%18.2)	*P=0.039*[a]
feeling of pain on the genital part or lower part of abdome	12(%68.2)	11(%50.0)	*P=0.289*[a]

a- Binomial distribution used. b- McNamara Test

Table 3: rate of recovery of anal-rectal disorders, urine system disorders and general syndromes after corrective surgery of pelvic organs prolapse

kind of disorders	**rate of recovery** (n=22)
Anal-Rectal Disorders	
pressing around the anus for excretion	11(%50.1)
much pushing for excretion	7(%31.8)
to feel excretion has not done completely	9(%40.9)
uncontrollable excretion of hard excrement	3(%13.6)
uncontrollable excretion of lax excrement	4(%18.2)
uncontrollable excretion of gas	8(%36.2)
pain on excretion	10(45.5)
sever and urgent need for excretion	7(%31.8)
rectum prolapse from anus during excretion or after it	4(%18.2)
Urine System Disorders	
to feel cyst has not evacuated completely	10(%45.5)
pressing the prolapse area for beginning or completing the urination	7(%31.8)
urination at short intervals (frequency)	10(%45.5)
trickle of urine on need for urination	7(%31.8)
trickle of urine on sneezing, gaping or smiling	6(%27.3)
less trickle of urine (drop by drop)	6(%27.3)
urine evacuating hardly	4(%18.2)
General Syndromes	
feeling of presser on the lower part of the abdomen	11(%50.0)
feeling of weight on the pelvic part	11(%50.0)
prolapse or observable mass	9(%40.9)
feeling of pain on the genital part or lower part of the abdomen	9(%40.9)

Table 4: rate of recovery of anal-rectal disorders, urine system disorders and general syndromes before and after corrective surgery of pelvic organs prolapse based on POP-Q

POP-Q	**before surgery** (n=22)	**after surgery** (n=22)	**p. value**[b]
Anterior			
NL	1(%4.5)	4(%18.2)	
Grade I	5(%22.7)	13(%59.1)	
Grade II	10(%45.5)	5(%22.7)	*P=0.000*[a]
Grade III	5(%22.7)	0	
Grade IV	1(%4.5)	0	
Posterior			
NL	0	8(%36.4)	
Grade I	0	5(%22.7)	
Grade II	10(%45.5)	5(%22.7)	*P=0.000*[a]
Grade III	9(%40.9)	4(%18.2)	
Grade IV	3(13.6)	0	
Apex			
NL	7(%31.8)	10(%45.5)	
Grade I	4(%18.29(%40.9))		
Grade II	4(18.2)	2(9.1)	*P=0.003*[a]
Grade III	6(%27.3)	1(%4.5)	
Grade IV	1(4.5)	0	
Levator			
NL	0	1(%4.5)	
I/V	5(22.76(%27.3))	0	
II/V	7(%31.8)	6(%27.3)	
			P=0.001[a]
III/V	5(%22.7)	2(%9.1)	
IV/V	4(18.2)	11(%50.0)	
V/V	1(%4.5)	2(%9.1)	

a- Binomial distribution used. b- Sign Test

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