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Comparison of Subjective Success of Extirpative and Obliterative Methods in the Treatment of Pelvic Organ Prolapse Among Elderly Patients

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ABSTRACT

Aim: This study aimed to compare the effects of surgical treatment methods of Pelvic Organ Prolapse, vaginal hysterectomy and colpocleisis, on quality of life in elderly patients.

Methods: In this retrospective cohort study, we retrospectively examined 28 patients operated for POP at our Pre-operative and post-operative symptoms and complaints were assessed usingthe validated versions of the short forms of the Urinary Distress Inventory (UDI-6) and the Incontinence Impact Questionnaire(IIQ-7).

Results: The mean operation time, pre-operative and post-operative hemoglobine values was not different about groups. The postoperative scores using the UDI-6 scale were 1,93±3,59 in the group I and 7±7,32 in group II (P = 0.32).

Conclusions: Colpocleisis is the preferred method of treatmentfor POP in elderly patients because of the shorter duration of surgery, the lower risk for bleeding and the comparable results of life quality scales.

KEYWORDS Advanced Age, Colpocleisis, Pelvic Organ Prolapse, Vaginal Hysterectomy

INTRODUCTION:

According to Turkish Statistical Association ("TÜİK") 7,7 % of the population comprises individuals of ≥ 65 years of age; this percentage estimated to reach 10% in 2023 and 20% in 2050 because of changes in the average lifespan (Ordu Gokkaya et al. 2012). More women will develop pelvic organ prolapse (is al) and/or lower urinary symptoms based on the increase in the prevalence of pelvic floor dysfunction with aging. Every 1 in 9 female patients aged ≥ 80 years are being operated for POP or incontinence and 1/3 of these need secondary procedures (Olsen et al. 1997). The comorbid diseases of patients with advanced al. remain a limiting factor of surgery. The conservative methods, such as pessaries, can cause erosion and infection in additon to the difficulty of use in patients with decreased self care skills because of their advanced age. Obliterative surgical methods, such as colpocleisis is often the preferred procedure for treating POP because of the shorter duration of surgery and lower rates of complicatons in cases that can not tolerate extensive surgeries because of theirmedical problems. This study aimed to investigate the postoperative subjective success of vaginal hysterectomy and colpocleisis in patiens aged ≥65 years.

MATERIAL AND METHODS:

The medical records of 28 cases operated for stage 3 and 4 POP with vaginal hysterectomy and McCal culdoplasty (n=19) and colpocleisis (n=9) at the Gynecology and Obstetrics Clinic of Izmir Katip Celebi University (IKCU) Faculty of Medicine between August 2011 and December 2014 were retrospectively analysed. The study was approved by the academic committee of the Department of Gynecology and Obstetrics Clinic of IKCU Faculty of Medicine. An informed consent was signed by all patients. The duration of operation and hospitalisation, pre-operative and post-operative haemoglobin values, presence of lower urinary tract symptoms after the procedure and intra-operative and post-operative complications were assess. The query forms of Urinary Distress Inventory (UDI-6) and Incontinence Impact Questionnaire (IIQ-7) validated for the Turkish language were applied by conducting face to face conversations or via telephone calls to 28 accessible patients. Post-operative lower urinary tract symptoms and the states of remorse and satisfaction from surgery were queried. Statistical analysis was applied with 95% confidence interval using the SPSS 15.0 package for Windows (Release 15.0.0-6 Sept 2006). To compare data between both methods, post hoc Boenferonni corrected and Mann Whitnet U-tests were conducted and P values of <0.05 were accepted as significant.

RESULTS:

The mean age of the vaginal hysterectomy group (group I) was 66,53±7,36 (58-82) and the mean duration of menopause was 18,53±7,6 (8-34) years whereas in the colpocleisis group (group II) these values were 78,5±11,17 (65-92) years and 31,5±12,44 (18-47) years respectively. The gravity and

parity numbers were similar between the two groups (Table I).

In pre-operative assessment, one patient in the group I had grade II dilatation of the ureter and recurrent urinary infection due to pre-operative urinary obstruction. Four cases had hypertension, 2 had diabetes and 1 had rheumatoid arthritis. One patient in the group II had dementia, 5 had hypertension, 3 had diabetes and 1 patient was using oral anticoagulants because of valvuloplasty.

In the group I (n=19), a transobturator midurethral sling was performed in 8 patients. The mean operation time was 110,65 ±14,17 (88-136) min in group I whereas this was 70±1,71 (56-90) min in the group II (n = 9) (P = 0,001).

In the group I intra-operative bleeding with no need for transfusion and post-operative febril morbidity were developed in two different patients. One patient in the group II had urinary retention but spontanously regressed after 24 h urinary catheterisation and administration of anti-inflammatory drugs. The duration of hospitalisation was 3,02 (2-9) and 2,6 (2-5) days for the group I and group II respectively. The mean pre-operative and post-operative haemoglobin values were 11,82 ± 1,35 and 10,51±1,27 in the group I and 11,33±0,95 and 10,87±0,77 in the group II, respectively (P = 0.054). In two patients in group I, mixed-type urinary incontinence developed during post-operative follow-up with a mean duration of 10,33 (2-25) months. One patient in the group II showed urgency incontinence at follow-up with a mean duration of 9,6 months (4-22). Grade II defect of anterior compartment developed two patients group I. None patient had recurrence of POP in the group II. The postoperative score of UDI-6 was 1,93±3,59 in the group I, 7±7,32 in the group II (P = 0.3) the IIQ-7scores were 0,93±1,71 and 0,33±0,82 in the group I and II respectively (p=0.53) (Table II)

DISCUSSION

In this retrospective cohort study, the validated scores of satisfaction of postoperative pelvic floor symptoms and the subjective success of extirpative and obliterative surgeriesin POP treatment were similar. No differences were detected between the groups in terms of post-operative lower urinary tract symptoms and the recurrence of POP.

POP is an important medical disorder affecting thousands of women. Among the elderly patients with POP, 11% needed surgical treatment. In patients with advanced age the rate of complications rises because of comorbid chronic cardiovascular, pulmonary and neurologic al diseases. surgical complications occuring in patients aged ≥70 years raised the risk of transfer to care centre by two fold (Gerten et al. 2008).

Current surgical procedures performed in apical POP treatment, such as sacrocolpoplexy, sacrospinous ligamentopexy and reconstructive procedures using prosthetic materials increase the morbidity in elderly patients owing to the long duration of surgery, bleeding, injury of adjacent organs and anesthetic complications, in addition to the risk of venous thromboembolism because of the delay in returning to normal physical activities (Stepp et al. 2005; Sung et al. 2006).

Colpocleisis is described as iatrogenic obliteration of the vagina by suturing the anterior and posterior vaginal surfaces. This procedure, which has been applied for two centuries has recently bacome more popular because of the increase in the population size of the elderly in the last two decades (FitzGerald et al. 2006; Pallavi et al. 2008). Despite its use in the same indications as reconstructive methods, colpocleisis offers several advantages such as shorter operation time, rapid healing, low rate of complications, and implementation with local anesthesia. However, because of the obliteration of the vagina, this method can only be applied to elderly patients who are not sexually active, with the disadvantage of blocking the endometrial and cervical sampling in addition to the negative impression of body image (Wheeler et al. 2005; Hullfish et al. 2007).

In planning the most optimal treatment, the age, medical comorbidities, risk of recurrence and social conditions of the patients should be assessted. The basic purpose of this selected treatment should ultimately raise the patients quality of life.

In elderly patients with increased risk of surgical and anaesthetic complications due to comorbidities, colpocleisis is often preferred over other surgical options. In a cohort study with a mean of patients age of 80 years obliterative and reconstructive procedures showed similar rates of improvement (Murphy et al. 2008). In different studies investigating the efficiency of colpocleisis, the subjective success and satisfaction rates were within the range of 90%-100% (Misrai et al. 2009; Gutman et al. 2010; Crisp et al. 2013; Zebede et al 2013; Vij et al. 2014). The rate of complications and mortality were 4% and 0,25% respectively because of medical comorbidities (FitzGerald & Brubaker 2003). The addition of mid urethral sling (MUS) procedure was approved for the prevention of post-operative urinary incontinence because of the rates of urinary incontinence based on the rates of urinary incontinence which ranged from 8 to 30% after colpocleisis (Pallavi et al. 2008; FitzGerald & Brubaker 2003; Moore & Miklos 2003).

In this study we determined that colpocleisis resulted in subjective success when compared with vaginal hysterectomy. The study showed that colpocleisis involved a shorter operation operation and hospitalization time and lower rate of recurrence, which were similar to those described in previous reports (Menard et al. 2008; Abbasy & Kenton 2010). Colpocleisis is therefore the prefered method for POP treatment in sexually inactive elderly patients in the mid or high operative risk groups because of comorbid diseases based on the associated shorter operation time, less blood loss and the comparable results in the quality of life indexes.

Table I: Demographic features of the cases

	Group I (n=19)			Group II (n=9)			p*
	Mean±SS	Min.	Max.	Mean±SS	Min.	Max.	
Age (years)	66.53±7.36	54	82	78.5±11.17	66	92	0.021
Duration of menopause (years)	18.53±7.61	8	34	31.5±12.44	18	47	0.035
Gravity	5.27±3.01	2	13	7.17±2.86	4	10	0.134
Parity	5.05±1.87	2	8	5.67±2.75	2	10	0.190
Body Mass Index	24.99±3.41	20.1	31.9	26.59±7.59	20.8	41	0.910

Group I: Vaginal hysterectomy,

Group II: Colpocleisis *Mann Whitney U p< .05

Table II: Operative results of the cases

	Group 1			Group 2			p*
	Mean±SS	Min.	Max.	Mean±SS	Min.	Max.	
Duration of the operation	110.65±14.17	88	136	70±12.15	56	90	0.001
Postop UDI	1.93±3.59	0	13	7±7.32	1	21	0.321
Postop IIQ	1.93±3.59	0	5	0.33±0.82	0	2	0.532
Preop HB	11.82±1.35	9.7	14.5	11.33±0.95	9.9	12.6	0.668
Postop HB	10.51±1.27	9	13.7	10.87±0.77	10	12	0.292
Change in HB (gr)	1.45±1.26	0.4	5	0.5±0.46	0	1.3	0.054

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