

## Effect of Urinary Incontinence on the Quality of Life of Patients in Postmenopausal Age Group who Applied to The Urogynecology Polyclinic

Ürojinekoloji Polikliniğine Başvuran Postmenopozal Yaş Grubundaki Üriner İnkontinansın Hasta Yaşam Kalitesine Etkisi

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### ÖZET

**Amaç:** İdrar kaçırma, kadın popülasyonunda sık görülen bir sağlık sorunudur. Bu çalışmada üriner inkontinans risk faktörlerini ve Bakırköy Dr. Sadi Konuk Eğitim ve Araştırma Hastanesi Ürojinekoloji ve üriner inkontinanslı poliklinik kliniğine başvuran postmenopozal kadınların yaşam kalitesi üzerine etkilerini değerlendirdik.

**Gereç-Yöntem:** Çalışmamız, Ocak 2003-Nisan 2013 tarihleri arasında polikliniğimize başvuran ve idrar kaçırma şikayetleri ile başvuran 139 postmenopozal hastayı içeren kesitsel ve retrospektif bir çalışmadır. Biz çalışmaya dahil edilen hastalara UDI-6 ve 7'yi sorgulayan IIQ-7 yaşam kalite anket formunu uyguladık.

**Bulgular:** Üriner inkontinansı olan 139 postmenopozal kadının yaş ortalaması 57,19 ± 9 idi. Vücut kitle indeksi artışı (p > 0.05), menoz süresi (p > 0.05), noktüri sayısı (p > 0.05) ve gece ıslatma (p < 0.005), doğum yapma (p > 0.05), kürtaj (p > 0.05), hipertansiyon (p < 0.05) ve bazı kronik hastalıklar, ilaç kullanımı (p < 0.05), üriner inkontinanslı postmenopozal kadınlarda yaşam kalitesinde değişikliğe neden olmamıştır. Aciliyet şikayeti olmayan hasta grubuna göre ani aciliyeti olan grupta yaşam kalitesinin anlamlı şekilde etkilendiği bulundu (p < 0,005).

**Sonuç:** Üriner inkontinansı olan hastalarda yaşam kalitesi özellikle psikososyal sağlığı bozar. Nesnel olarak gösterilen idrar kaçırma şiddetine bakılmaksızın, yaşam kalitesi olumsuz etkilenir.

**Anahtar kelimeler:** Üriner inkontinans, ürojinekoloji, postmenopozal kadınlar, yaşam kalitesi

### ABSTRACT

**Aim:** Urinary incontinence is a common health problem in women population. In this study, it was evaluated the urinary incontinence risk factors and its effect on the quality of life of the postmenopausal women applying to Bakırköy Dr. SadiKonuk Education and Training Hospital Urogynecology outpatient clinic with urinary incontinence.

**Materials and Method:** This study is cross-sectional and retrospective investigation which included 139 postmenopausal patients who applied to the outpatient urogynecology clinic with the complaints of urinary incontinence between January 2003-April 2013. It was performed UDI-6 and 7 questioned IIQ-7 life quality questionnaire form to the patients who were included in the study.

**Results:** The mean age of 139 postmenopausal women with urinary incontinence was 57.19±9. Body mass index increase (p > 0.05), duration of menopause (p > 0.05), the number of nocturia (p > 0.05) and night-time wetting (p < 0.005), making birth (p > 0.05), abortion (p > 0.05), hypertension (p < 0.05) as well as some chronic diseases, medication use (p < 0.05) did not cause a change in the quality of life in postmenopausal women with urinary incontinence. It was found that the quality of life was significantly affected in the group with sudden urgency when compared with the group of patients who did not have urgency complaint (p < 0,005).

**Conclusion:** Quality of life deteriorates, especially psychosocial health, in patients with urinary incontinence. Regardless of the severity of the urinary incontinence that is shown objectively, the quality of life is negatively affected.

**Keywords:** Urinary incontinence, urogynecology, postmenopausal women, quality of life

## INTRODUCTION

Urinary incontinence (UI) is involuntary urinary leakage affecting the social lives of patients and creating hygiene-related problems (Abrams et al., 1998). UI is not only a symptom but also a disorder that can affect the entire social life of an individual. It is well-known that urinary leakage causes psychological disorders as serious as depression due to the disturbance caused by continuous wetness and irritation (Fantl et al., 1996).

In this study, it was aimed to determine the effects of risk factors for urinary leakage on the quality of life in postmenopausal women who presented to the Urogynecology Outpatient Clinic.

## MATERIAL AND METHODS

A total of 139 postmenopausal women who had presented to the Urogynecology Outpatient Clinic of SBÜ Bakırköy Dr. Sadi Konuk Training and Research Hospital with the complaint of urinary leakage between January 2013 and April 2013 were included in this study, and the charts of these patients were retrospectively reviewed. The patients registered in our unit are periodically examined and treated according to their clinical status. The risk factors that might lead to urinary incontinence were investigated together with the effects of these risk factors on the quality of life in postmenopausal patients involved in the study.

The medical and family history, the obstetric-gynecological history, the pattern, frequency, and duration of urinary leakage, diaper use, systemic disorders, drug use, and surgical history of the patients admitted to the Urogynecology Outpatient Clinic were questioned. The results of fasting blood sugar, complete urinalysis, and urine culture were investigated, and on physical examination, pelvic organ prolapse (POP-Q) staging was performed in all patients.

IIQ-7, which is a scale of incontinence equality of life, is an index validated by Cam et al. (2006) like UDI-6.

In this study, it was used the short form of IIQ-7, having seven items.

## Statistically analysis

In this study, descriptive statistics for the categorical variables (characteristics) were presented as count and percent. For determination relations among the categorical variables, Spearman correlation coefficients were calculated. Statistical significance levels were considered as 5% and NCSS statistical program was used for all statistical computations.

## RESULTS

Of this patients included in the study, 66 (47.5%) had hypertension, 32 (23%) diabetes mellitus (DM), 5 (3.6%) chronic heart failure, 11 (7.9%) thyroid disorder, and 11 (7.9%) asthma. The presence of a gynecological operation in the medical history was found in 42 (30.2%) patients.

Constipation was present in 55 (39.9%) patients, and the incidence of drug use was 51.8% (72 patients). Frequent urination was present as a symptom in 47 (33.8%) patients and absent in 93 (66.2%) patients. Nocturia was present in 89 (64.5%) patients, whereas urgency in 108 (77.7%). Nocturnal wetness was present in 42 (30.2%), dysuria in 33 (23.7%), stress incontinence in 95 (68.3%), and urge incontinence in 100 (71.9%) patients. 62 (44.6%) patients were using diapers. Urinary retention was present in 38 (27.3%), and the urinary stress test was positive in 63 (45.3%) patients (Table 1).

The average duration of symptoms in patients was  $3.80 \pm 5.58$ , the mean of nocturia was  $2.53 \pm 1.09$  m (1-6), the mean of IIQ-7 was  $9.11 \pm 4.77$  (0-21), the mean UDI-6 was  $10.39 \pm 4.01$  (0-18), and the mean duration of menopause was  $8.82 \pm 8.37$  (1-40).

No significant relationship was determined between IIQ-7 score and age, gravida, parity, NSD, C/S, BMI, duration of symptoms, duration of menopause, and the number of nocturia episodes ( $p > 0.05$ ). No significant relationship was determined between UDI-6 score and age, NSD, C/S, BMI, duration of symptoms, duration of menopause, and the number of nocturia episodes ( $p > 0.05$ ). A positive relationship was determined between UDI-6 score and gravida and parity values ( $r = 0.168$   $p = 0.049$ ,  $r = 0.186$   $p = 0.03$ ) (Table 2).

**Table 1.** The distribution of the complaints and drug usage of patients

		n	%
Constipation	Present	55	39.9
Drug Usage	Present	72	51.8
Frequency	Present	46	33.1
Nocturia	Present	89	64.5
Urgency	Present	108	77.7
Nocturnal Wetness	Present	42	30.2
Dysuria	Present	33	23.7
Stress Incontinence	Present	95	68.3
Urge Incontinence	Present	100	71.9
Diaper Usage	Present	62	44.6
Urinary Retention	Present	38	27.3
Urinary Stress Test	Present	63	45.3

**Table 2.** The effect of the sociodemographic characteristics of patients on Quality of Life Indexes

		IIQ7	UDI6
Age	r	0.016	-0.043
	p	0.853	0.614
Gravida	r	-0.032	<b>0.168</b>
	p	0.709	<b>0.049</b>
Parity	r	0.058	<b>0.186</b>
	p	0.501	<b>0.03</b>
NSD	r	0.036	0.168
	p	0.682	0.053
C/S	r	0.025	0.088
	p	0.771	0.307
BMI	r	-0.05	0.13
	p	0.556	0.128
Duration of Symptoms	r	0.083	0.161
	p	0.332	0.058
Duration of Menopause	r	0.05	-0.037
	p	0.558	0.664

An anterior defect was not present in 99 (71.2%) of patients. A stage 1 anterior defect was present in 15 (10.8%), a stage 2 anterior defect in 18 (12.9%), a stage 3 anterior defect in 6 (4.3%) patients, and a stage 4 anterior defect was present in 1 (0.7%) patient.

A posterior defect was not present in 111 (79.9%) of patients. A stage 1 posterior defect was present in 11 (7.9%), a stage 2 posterior defect in 11

(7.9%), a stage 3 posterior defect in 5 (3.6%) patients, and a stage 4 posterior defect was present in 1 (0.7%) patient.

An apical defect was not present in 121 (87.1%) of patients. A stage 1 apical defect was present in 5 (3.6%), a stage 2 apical defect in 6 (4.3%), a stage 3 apical defect in 5 (3.6%), and a stage 4 apical defect in 2 (1.4%) patients. No significant relationship was determined between the IIQ-7

score and the values of the anterior, posterior, and apical defects ( $p>0.05$ ). No significant association was found between the UDI-6 score and the values of posterior defects ( $p>0.05$ ). A

significant negative correlation was determined between UDI-6 value and the values of anterior and apical defects ( $r=-0.194$   $p=0.022$ ,  $r=-0.194$   $p=0.022$ ) (Table 3).

**Table 3.** The effect of POP-Q Staging of patients on Quality of Life Indexes

		IIQ7	UDI6
Anterior Defect	r	-0.162	<b>-0.194</b>
	p	0.057	<b>0.022</b>
Posterior Defect	r	-0.091	0.001
	p	0.286	0.998
Apical Defect	r	-0.06	<b>-0.194</b>
	p	0.480	<b>0.022</b>

No significant difference was determined regarding the mean value of UDI-6 between the patient group with a positive gynecological operation history and the patient group in which such a history was absent ( $p=0.121$ ). The patient group with nocturia was found to have a significantly higher mean value of UDI-6 than the group that nocturia was absent ( $p=0.001$ ). The mean UDI-6 value of the group that urgency was present was considerably higher than that of the group with no urgency ( $p=0.0001$ ). No significant difference was found regarding the mean UDI-6 value between the groups with and without nocturnal wetness ( $p=0.110$ ). The group using diapers had a significantly higher mean value of UDI-6 when compared to the group not using diapers ( $p=0.02$ ). No significant difference was present between the groups having and not having dysuria regarding the mean UDI-6 value (Figure 1). No significant difference was determined regarding the mean IIQ-7 value between the patient group with a positive gynecological operation history and the patient group in which such a history was absent ( $p=0.055$ ). No significant difference was found between the patient groups with and without nocturia regarding the mean IIQ-7 value ( $p=0.284$ ). The mean IIQ-7 value of the group that urgency was present was significantly higher than that of the group with no urgency ( $p=0.004$ ). No significant difference was found regarding the mean IIQ-7 value between the groups with and without nocturnal wetness ( $p=0.955$ ). No significant difference was present between the groups having and not having dysuria regarding the mean IIQ-7 value ( $p=0.817$ ). The groups using and not using diapers did not have a significant

difference in the mean IIQ-7 value ( $p=0.140$ ). (Figure 2).

## DISCUSSION

Urinary incontinence is a common problem in the community. The prevalence of urinary incontinence varies between 10-60% (Bump et al., 1992, Koçak et al., 2009). The studies conducted in our country revealed that this rate was over 50% (Cam et al., 2006). As many authors have pointed out, the main reasons for such discrepancies in reported prevalence rates are the differences between the communities that the studies were conducted, clinical studies being more in number, and the differences regarding the definition of urinary incontinence (Lasserre et al., 2009, Çetinel et al., 2005). When it was look at the studies investigating the urinary incontinence and its treatment status in the literature, Ertem et al. stated that 66.6% of women had encountered urinary incontinence symptoms for 2 years or more (Ertem et al., 2002). In this study, the mean duration of urinary incontinence complaints was determined as  $3.80\pm 5.80$ . This situation suggests that the knowledge level of the community on urinary incontinence in women is insufficient. Additionally, anterior defects were identified in various stages according to the POP-Q Staging in 28.8%, posterior defects in 20.1%, and apical defects in 12.9% on gynecological examination of postmenopausal women with urinary incontinence. It was found that the quality of life of postmenopausal women with urinary incontinence and having an anterior or apical defect were negatively affected, whereas the quality of life of women with posterior defects were not significantly affected.

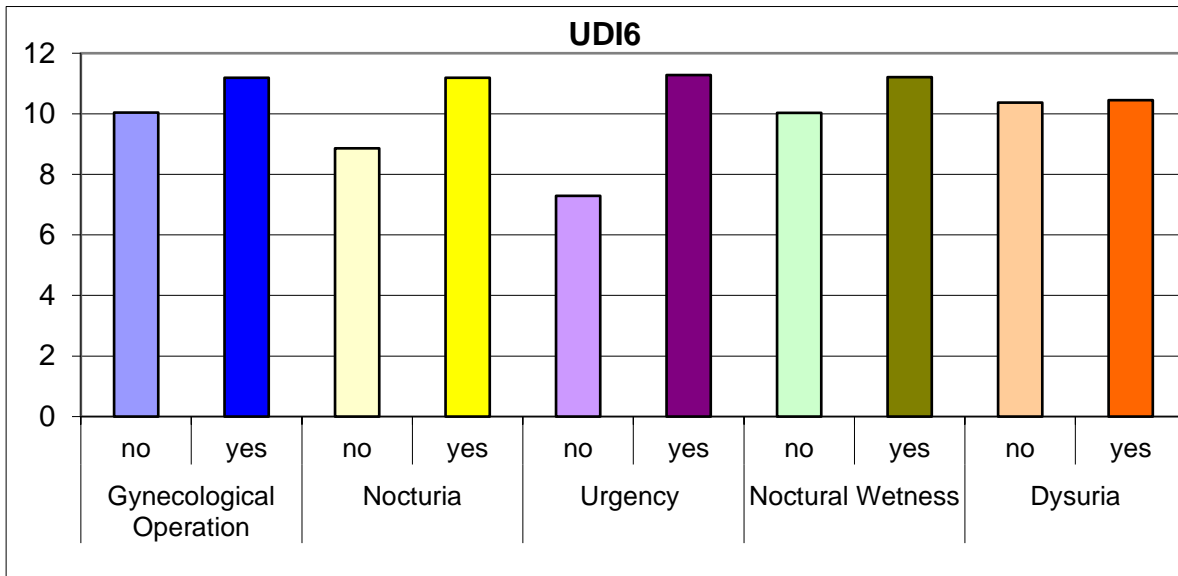


Figure 1. The distribution of the effects of patients' complaints on UDI6 Quality of Life Index

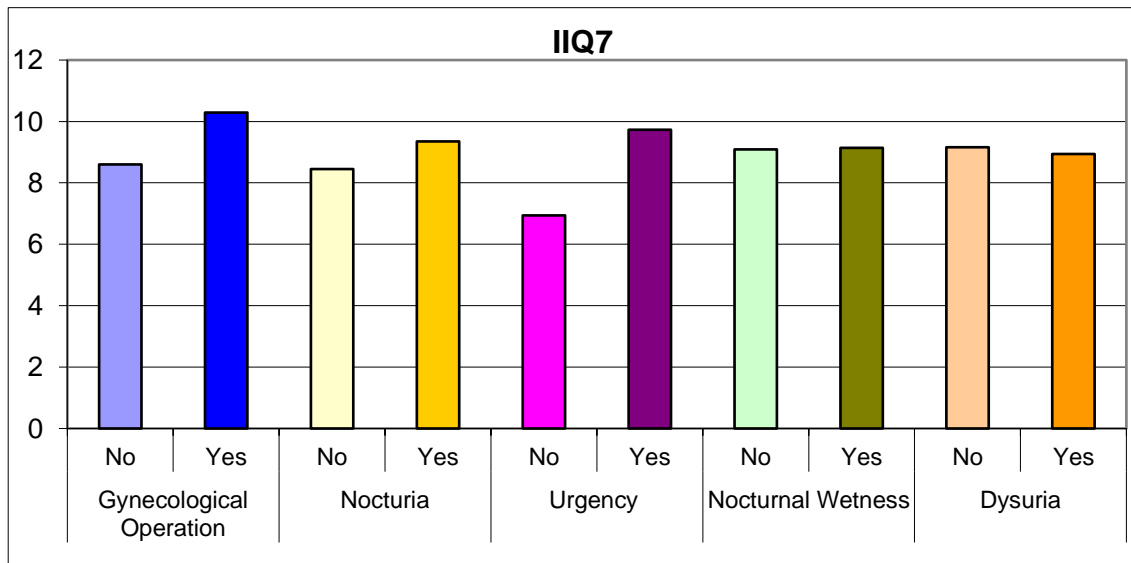


Figure 2. The distribution of the effects of patients' complaints and urinary test results on IIQ7 Quality of Life Index

Several conducted studies have reported a relationship between gynecological operations and urinary incontinence (Parazzini et al., 2000, Hsieh et al., 2008). In this study, we determined that there was no difference between the group of postmenopausal women who had undergone a gynecological operation and those who had not, regarding the mean IIQ-7 quality of life score; thus, it were unable to determine any significant relationship between undergoing gynecologic surgery and the quality of life of patients. Milsom et al (1993) reported that a relationship was

present between the high parity value and urinary incontinence; a significant rise in the incidence of urinary incontinence was particularly present following the first childbirth (Milsom et al., 1993). In the study conducted by Parazzini et al.(2000), it was found that while the urinary incontinence rate was 20% in nulliparous women, this rate increased to 53% after first pregnancy, 34% after two pregnancies, 39% after three pregnancies, 54% after 4 pregnancies, and 62% after 5 or more pregnancies (Parazzini et al., 2000). In this study, the mean gravida value was

found as  $5.72 \pm 2.94$ , and the mean parity value as  $4.04 \pm 2.31$ . We did not determine any significant relationship between the IIQ-7 score, the gravida value, and the parity value; however, it was determined significant relationships of UDI-6 score with the gravida and parity values.

Additionally, we determined a significant relationship between hypertension and urinary incontinence. In present study, we determined the presence of drug use in 72% of the patients with urinary incontinence. 47.5% of these patients were using hypertension-related drugs. Especially diuretics used in the treatment of hypertension, by leading to polyuria, frequent urination, and urgency, and alpha-blockers, by leading to urethral relaxation, may cause urinary incontinence. Moreover, in this study, it was found that diapers were being used by 44.6% of the patients with urinary incontinence, and the mean value of UDI-6 in the group using diapers was significantly higher when compared to the group of patients not using any diapers. However, no significant difference was determined between these groups regarding the mean IIQ-7 value. Frequent diaper use due to the fear of urinary incontinence may cause chronic irritation and infection. Koçak et al. (2005), in their study conducted on 1012 women aged 18 years or older, reported 242 cases of urinary incontinence. In the same study, when the frequency of urinary incontinence was investigated, it was found as less than once a week in 45.9%, twice or thrice a week in 17.4%, once a day in 9.9%, a few times a day in 13.2%, and all the time in 13.6% (11). In this study, we found that the mean UDI-6 and IIQ-7 values were high in the group urinating more than 8 times a day. Therefore, the complaint of frequent urination adversely affects the quality of life of patients. Nocturia at least once was present in 64.5% of the patients with urinary incontinence. The UDI-6 score of the patient group with nocturia was significantly higher when compared to the group with no nocturia. It was reported that patients having urinary incontinence had been uncomfortable and embarrassed due to their complaints, and for this reason, had restricted their social activities. In the study conducted by Choo et al., it was reported that urinary incontinence had affected the social life and the quality of life negatively (Choo et al., 2007). Van Brummen et al. (2006), in their study conducted on 474 women using the UDI-6 and IIQ-7

questionnaires, determined that the physical, social, and emotional scores of women were low, and urinary incontinence restricted their lifestyle (Van Brummen et al., 2006). When we look at the related data in our country, in the study, conducted by Kök following development of the survey questionnaires himself, investigating the effect of urinary incontinence on social life, a moderate-level influence was determined (Kök et al., 2006). In present study also, the quality of life of women having urinary incontinence were found to be affected at a moderate level according to the IIQ-7 index.

In postmenopausal female patients with urinary incontinence, the quality of life of patients, mainly the emotional status and social life, are impaired. This situation, which is commonly met in the community, may cause many psychological disorders. It should be considered important that patients feel well in social life, and both psychological and medical support should be provided to the patient. For this reason, more importance should be given by the medical personnel to the diagnosis and treatment of urinary incontinence, patients should be informed that urinary incontinence is not a part of the aging process, and by this way, the quality of life of postmenopausal women should be increased.

## REFERENCES

- Abrams P, Blavias JG, Stanton SL, Andersen JT. The standardization of terminology of lower urinary tract dysfunction Scand J Urol Nephrol 1998; Suppl 114;5-19.
- Bump RC, McClish DK. Cigarette smoking and urinary incontinence in women. Am J Obstet Gynaecol 1992; 167:1213.
- Cam C, Karateke A, Sakallı M. Validation of the short forms of Incontinence Impact Questionnaire (IIQ-7) and Urogenital Distress Inventory (UDI-6) in a Turkish Population. Neurourology Urodynamics. 2006; 26: 129-133
- Choo MS, KujH, Oh SJ, Lee KS, PaickJS, Seo JT, etal. Prevalence of urinary incontinence in Korean women:an epidemiologic suvey. IntUrogynecol J Pelvic Floor Dysfunct 2007;18(11):1309-15.
- Çetinel B. İdrar kaçırma (ürinerin kontinans): Tanımlama, sınıflandırma, değerlendirme ve tipleri. Türk Ürol Derg 2005; 31:246-52.

- Ertem KG, CobanA, Sevil U. Evaluation of the insidance of incontinence in women applied to gynecology clinic and effect of their Qol. J EgeUniv School Nurs 2002;18(1-3):57-68.
- FantlJA, Newman DK, Colling A. Urinary in adults: Acute and Chronic management. Clinical PractiseGuideline No.2 1996.
- Hsieh CH, Lee MS, Lee MC, Kuo TC, Hsu CS, Chang ST et al. Risk factors for urinary incontinence in Taiwanese women aged 20-59 years. Obstet Gynecol 2008;47:197-202.
- Kök G, Şenel N, Akyüz A. GATA jinekoloji polikliğine başvuran 20 yaş üstükadınların ürinerin continans açısından farkındalık durumlarının değerlendirilmesi. GülhaneTıpDerg 2006; 48:132-6.
- Koçak I, Okyay P, DüNDAR M, Erol H, Beser E: Female urinary incontinence in the West of Turkey: Prevalence, risk factors and impact on quality of life. EurUrolog 2005; 48:634-41.
- Lasserre A, Pelat C, Guérault V, et al. Urinary incontinence in French women: prevalence, risk ractors, and impact on quality of life. Eur Urol 2009; 56: 177-183.
- Milson I, Ekelumd P, Molander U, Arvidson L: The influence of age, parity, oral contraception, hysterectomy and menopause on the prevalence of urinary incontinence in women. J Urolog 1993;149:1459-62.
- Van Brummen HJ, Bruinse HW, Van de PolG, Heintz AP, Van der Vaart CH. What is the effect of over active bladder symptoms on woman's quality of life during and after first pregnancy? BJU Int 2006;97(2):296-300.
- Parazzini F, Colli E, Origgi G, Surace M, Bianchi M, Benzi G et al. Risk factors for urinary incontinence in women. EurUrol2000;37:637-43.