İstanbul Med J 2018; 19: 43-6
DOI: 10.5152/imj.2018.45722

Original Investigation

Urinary Incontinence in Pregnant Women and its Relation with Quality of Life

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Abstract

Introduction: To investigate urinary incontinence (UI) with the international consultation on incontinence questionnaire (ICIQ-SF) in pregnant women.

Methods: The present study was conducted at a tertiary center between June 2014 and December 2014. It included 219 females who willingly participated. A questionnaire was used for collecting data. The questionnaire was administered as face-to-face interviews by researchers in a separate room. The SPSS 20.0 (SPSS Inc.; Chicago, IL, USA) software was used for statistical analysis.

Results: The mean patient age was 28.8±5.4 years. With scores of maximum 19 and minimum 0, ICIQ-SF revealed which pregnant women receive, from their answers, the questions that include "how often do you leak urine," "how much urine do you usually leak," and "how much does leaking urine interfere with your daily life". Totally, 127 patients (58.3%) reported that they never leak urine; however, 14 (6.4%) reported that they always leak urine.

Conclusion: UI during pregnancy is an important symptom affecting a woman's physical, psychological, social, and economic well-being and quality of life. Obstetricians teach and provide training for pelvic floor exercises during pregnancy. The characteristics of UI in patients should be investigated in detail using a standardized questionnaire. In antenatal care, urogynecologists and obstetricians should work together as a multidisciplinary team. Additionally, information regarding the prevention of pelvic floor disorders should be included in prenatal and postnatal care.

Keywords: Pregnancy, quality of life, urinary incontinence

Introduction

Urinary incontinence (UI) has been defined by the International Continence Society as "the complaint of any involuntary loss of urine" (1). UI is both a medical and a social problem that deteriorates the quality of life. Although UI is not a life-threatening issue, irritation and the discomfort due to being wet is a condition that embarrasses a person and causes a feeling of insufficiency, which may finally result in emotional problems such as depression (2). UI is an isolated disorder of the urinary system with complicated and multifactorial pathogenesis (3, 4). There are several risk factors that play roles in the development of UI such as advanced age, delivery, delivery-related traumas, obesity, smoking, chronic cough, constipation, pelvic organ prolapse, menopause, and toilet habits (5).

The incidence of UI reportedly ranges from 20% to 60% in pregnant women, particularly occurring in the third trimester (6). Stress-type incontinence is the most prevalent type of UI during pregnancy owing to hypermobility of the bladder neck and insufficiency of the sphincter mechanism (7). As there is no standard questionnaire concerning UI available in Turkey, we used the Turkish translation of the international consultation on incontinence questionnaire (ICIQ-SF) in the present study. The reliability and validity tests of the Turkish version of ICIQ were conducted by Çetinel et al. (8); this incontinence questionnaire is currently being used as a standard in international publications with proven reliability, validity, and stability.

In the present study, we employed the incontinence questionnaire to assess UI, which is a social, emotional, and hygienic problem faced by pregnant women.

Methods

The present study was conducted between June 2014 and December 2014 following the approval of the ethics committee at a tertiary center. Totally, 219 pregnant women who ap-

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Received: 24.04.2017

Accepted: 17.10.2017

plied to the polyclinic and were admitted to participate in the research were included in the study. Only pregnant women who were in the third trimester were included in the study. Informed consent was obtained from all participants. A validated Turkish version of the ICIQ-SF was used. The questionnaire was applied by researchers via face-to-face interviews in a separate room. Exclusion criteria were major medical diseases, asthma, allergies, history of psychiatric disorders, urinary tract infections, neurological diseases, metabolic diseases, and diuretic-containing drug consumption.

Statistical Analysis

Frequency, ratio, mean, and standard deviation values were used in descriptive statistics of the study data. Analyses were performed using the SPSS (Statistical Package for Social Sciences) version 20.0 (IBM Corp.; Armonk, NY, USA) software.

Results

The mean patient age was 28.8±5.4 years. The sum of the scores obtained from the questions related to the frequency of UI, amount of leakage, and overall impact of UI was determined by the total ICIQ score that ranked from 19 to 0. No UI was reported by 127 patients (58.3%); however, 14 patients (6.4%) reported continuous UI. When the amount of leakage was enquired, only one pregnant woman reported "a large amount." Two patients revealed that UI had a significant impact on their daily life, whereas the remaining 159 women reported that UI did not affect their life. When enquired about the time of UI, 38.5% women reported "while coughing or sneezing," and 45.4% reported that they never experienced UI. Table 1 presents the participant responses to the questionnaire.

Table 1. Responses of pregnant women to the questionnaires

	Min-Max	Median	Mean±SD/n%	
Age	18 - 50	28	28.8±5.4	
ICIQ score	0 - 19	0	2.4±3.4	
How often do you leak urine? (Tick one option)				
Never			127	58.3%
Once a week or less often			42	19.3%
Two-three times a week			11	5.0%
Once a day			14	6.4%
Several times a day			10	4.6%
All the time			14	6.4%
We would like to know how much urine you think leaks. How much urine do you usually leak (whether you wear protection or not)? (Tick one option)				
Never			148	67.9%
Small amount			58	26.6%
Moderate amount			11	5.0%
Large amount			1	0.5%
Overall, how much does leaking urine interfere with your everyday life? Please choose a number between 0 (not at all) and 10 (a great deal)				
0			159	72.9%
1			23	10.6%
2			14	6.4%
3			12	5.5%
4			4	1.8%
5			4	1.8%
10			2	0.9%
When does urine leak? (Please tick all options that apply to you)				
Never, urine does not leak			99	45.4%
Leaks when you cough or sneeze			84	38.5%
Leaks when you are physically active/exercising			0	0.0%
Leaks before you can get to the toilet			29	13.3%
Leaks when you have finished urinating or are dressed			2	0.9%
Leaks all the time			3	1.4%
Leaks for no obvious reason			2	0.9%

ICIQ: International Consultation on Incontinence Questionnaire

Discussion

UI is a considerable symptom affecting the physical, social, and economic well-being and the quality of life of women during pregnancy, as in every period of life. In the present study, 41.7% pregnant women expressed that they suffered from UI during pregnancy. Lasserre et al. (9) reported the prevalence of UI during pregnancy as 26.8% in a study carried out in 2183 patients. Salman et al. (10) revealed that the prevalence of the disorder ranges between 20% and 67%. The main reason of such a huge difference between the ratios reported in previous studies is the diversity of the societies, clinical nature of the studies, and differences in the definition of UI. When we analyzed the studies regarding UI in Turkey, the prevalence was generally >50%, similar to our study (11). We found a high UI prevalence in the present study; it may be because of the fact that the socio-cultural levels of our patients were low and they were not sufficiently informed about how UI can be prevented or minimized during pregnancy. A great task falls to obstetricians for educating and training patients regarding pelvic floor exercises within the scope of the trainings provided during pregnancy.

The commonest UI type seen during pregnancy is stress incontinence, which occurs as a result of anatomical and functional changes in the lower urinary tract (7). Mechanical or hormonal pregnancy impacts may adversely affect pelvic support (10). Various studies have indicated that there may be a downward displacement of the pelvic floor detected by perineal ultrasound even in early periods of pregnancy and that a marked decrease in the contractility of the pelvic floor muscles and increase in the mobility of the bladder and urethra, which become more significant in later periods of pregnancy (12-16). The commonest type of incontinence experienced by our patients was stress-type UI (38.5%), and the second commonest was urge-type UI (13.3%). Similar to our study, Kök et al. (17) reported stress-type incontinence to be the most frequent type of UI among pregnant women.

The perception and definition of UI and its relation with various activities and impacts on the quality of life vary from society to society, depending on educational background and several cultural factors. The characteristics of incontinence should be investigated in detail in patients experiencing UI. Unless standardized questionnaires are applied for assessment, the results may differ according to the physician performing the assessment. There are various questionnaires that may be used for this purpose (18, 19). We used a validated and reliable Turkish questionnaire, which was filled out by the patients themselves, and not by the physician. Allowing the patient to fill answer the questionnaire is the best method for observing the patient's perspective on UI and its impacts on the quality of life (20).

Conclusion

Urinary incontinence is a public health problem globally deteriorating patients' quality of life. Urogynecologists and obstetricians should work together to conduct multidisciplinary approaches for antenatal health programs and inform patients on how to prevent pelvic floor disorders as a part of prenatal and postnatal care. Despite our findings, it is important to note the limitations of our study, including the cross-sectional design and small sample size. Also, our study did not match participants for age, parity, and other demographics.

Ethics Committee Approval: Authors declared that the research was conducted according to the principles of the World Medical Association Declaration of Helsinki "Ethical Principles for Medical Research Involving Human Subjects", (amended in October 2013).

Informed Consent: Informed consent was obtained from the patients who participated in this study.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - H.C., C.H.; Design - H.C., C.K.; Supervision - C.H.; Resource - M.S.B.; Data Collection and/or Processing - V.S.E.; Analysis and/or Interpretation - C.K., H.D.; Literature Search - C.H., H.D.; Writing - H.C.; Critical Reviews - H.C.

Conflict of Interest: The authors have no conflict of interest to declare.

Financial Disclosure: The authors declared that this study has received no financial support.

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Cite this article as: Dağdeviren H, Kaya C, Cengiz H, Erdoğan VŞ, Helvacıoğlu Ç, Bilecan MS. Urinary Incontinence in Pregnant Women and its Relation with Quality of Life. İstanbul Med J 2018; 19: 43-6.