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İlerleyen Yaşta Pelvik Taban Bozukluğu

Pelvic Floor Disorder with Advancing Age

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ÖZ

GİRİŞ ve AMAÇ: *Nüfustaki yaşam süresinin artması, yaşlı kadın oranlarında hızlı bir artışa neden olmakta; bu da artan yaşla birlikte pelvik tabandaki değişikliklerin neden olduğu pelvik taban fonksiyon bozukluklarının önlenmesini ve tedavisini gerektirmektedir. Pelvik taban değişikliklerine bağlı pelvik taban disfonksiyonu, yetişkin nüfusun yarısını oluşturan kadınlar için önemli bir sağlık sorunudur. Bu çalışmanın amacı, farklı yaşlardaki kadınlarda pelvik taban bozukluklarının yaş aralığı, frekansları ve evrelerini araştırmaktır.*

YÖNTEM ve GEREÇLER: *Bu çalışmada 20 ila 70 yaş arasındaki 30 kadına anket uygulanmıştır. Elde edilen sonuçlara göre, bu bozukluğun yaş aralığı, sıklığı ve evreleri araştırılmıştır.*

BULGULAR: *En yüksek şikayet oranının (%30) aciliyet hissi olduğu, bunu idrar kaçırma (%26.7), kitle şikayeti (%20) ve idrar bozukluğu (%16.7) takip ederken şikayetlerin en düşük oranı (%6.7) dışkı inkontinansı için kaydedilmiştir. T-testi, kadınların menopoz öncesi ve sonrası şikâyetlerinin istatistiksel olarak anlamlı olduğunu ortaya koymuştur.*

TARTIŞMA ve SONUÇ: *Bulgular, aciliyet hissinin pelvik taban bozukluklarının neden olduğu en yaygın şikâyetlerden biri olduğunu ve menopoz durumunun bu bozukluğun erken teşhisi ve uygun şekilde ilgilenilmesi için dikkatle izlenmesi gerektiğini göstermektedir.*

Anahtar Kelimeler: *Pelvik taban, rahim, östrojen, aciliyet hissi, kendini tutamama*

ABSTRACT

INTRODUCTION: *The increasing life span in the population leads to a rapid increase in the proportion of older women, which in turn requires the prevention and treatment of pelvic floor dysfunctions caused by changes in the pelvic floor with the advancing age. Pelvic floor dysfunction due to pelvic floor changes is an important health problem for women who make up half of the adult population. The objective of this study was to investigate the age range, frequencies and the phases of pelvic floor disorders in women of different ages.*

METHODS: *In this study, a questionnaire was applied to 30 women in ages ranging from 20 years to 70 years. In line with the results obtained, the age range, the intervals and stages of this disorder were explored.*

RESULTS: *The highest rate (30%) of complaints was observed to be feeling of urgency which was followed by urinary incontinence (26.7%), mass complaint (20%) and urination disorder (16.7%), while the lowest rate (6.7%) of the complaints was recorded for fecal incontinence. T-test analysis revealed that complaints of women before and after menopause were statistically meaningful.*

DISCUSSION and CONCLUSION: *The results suggest that feeling urgency is one of the most common complaints caused by pelvic floor disorders and menopausal status needs to be watched carefully for early detection and proper attention of this disorder.*

Keywords: *Pelvic floor, uterus, estrogen, urgency, incontinence*

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INTRODUCTION

Pelvic floor changes were reported for the first time with the description of uterus sagging in the Egyptian inscriptions 2000 years ago (1). At the beginning of the last century, the understanding of the support of uterine ligaments to the uterus has led to a more enlightened pathophysiology. The pelvic floor changes, which are generally accepted from the very beginning, are the result of aging and childbearing.

The uterus stops at the deepest point of the chamber and it is attached to the roof bones named after the strong bonds around it (bone pelvis) (2). In women, however, the pelvic bones and connective tissues, which help the uterus maintain its shape, are weakened over the time. As a result of this slimming, the uterus first extends into the vagina, and later on protrudes out through the vagina (3).

The most important reason of uterine sagging is mostly pregnancy and pregnancy related traumas (4). In some women (even in some virgin girls), a genetically weakened connective tissue may cause sagging of the uterus (5).

Other causes of uterine sagging in women include power-intensive activities such as weight lifting and heavy sports, constipation, multiple births, excess weight, heavy stress, prolonged coughs, smoking and asthma (4,6-7).

Pelvic floor dysfunction is a term that covers a wide clinical spectrum. This spectrum mainly includes anterior compartment (bladder) and posterior compartment (bowel). The two most common signs of anterior compartment disorders are urinary incontinence and organ sagging. Posterior compartment disorders are related to colorectal functions. These colorectal dysfunctions are often problems of fecal and / or gas incontinence (8-9). Although it is not a life-threatening problem, the existence of this situation often puts the person in a difficult situation by disrupting the quality of life. If left untreated, it may lead to problems from social isolation to sexual repression (10). The rapid increase in the proportion of elderly women in the community makes it necessary to prevent and treat pelvic floor dysfunctions. In order to achieve this, the problem must be well understood as the first step.

Uterine prolapse occurs when the pelvic floor muscles and ligaments are stretched, weakened and no longer provide adequate support for the uterus (1,6). As a result, the uterus slides down or extends into the vagina. Uterine prolapse may occur in women of all ages. However, it usually affects postmenopausal women who have one or more vaginal deliveries (7).

1.Facilitating factors for pelvic floor dysfunction

Mechanical disintegration of the pelvic floor support tissue due to previous pelvic surgeries, vaginal deliveries and pregnancy, is the main factor in the development of pelvic floor dysfunctions (11).

Pelvic floor supports the pelvic organs to reduce the load on the ligaments of this structure, while deterioration of the pressure on the bonds leads to the deterioration of the pelvic floor function. As a result, pelvic floor dysfunction begins to appear in various extends (12). Most of the pathological conditions leading to this dysfunction occur after pregnancy and especially after vaginal delivery (9).

2. Estrogen deficiency

The structures forming the pelvic floor are the target regions of estrogen. This may indicate that estrogen deficiency after menopause is one of the important causal factors of pelvic floor dysfunction in elderly patients (13). Urinary complaints occur immediately before and immediately after menopause, which is in agreement with the effects of sudden estrogen level changes on the pelvic floor during this period. Failure to adequately assess pelvic floor dysfunction and concomitant pathologies may lead to misconceptions and misdiagnosis (e. g. recurrent urinary tract infection). Therefore, it is very important to evaluate the pelvic floor dysfunctions in proper detail (14).

3. Evaluation of Pelvic Floor Dysfunctions

For the physical examination, the patient stands separately while sitting and in the lithotomy position for anal endosonography. The evaluation methods of the pelvic floor can be categorized according to the examination approach used. Semi-objective methods evaluate urinary complaints with various interrogations, time and degree of urinary

complaints, prolapse, sexual status and stool problems (15).

The international continence association states that the urinary diaries are one of the main components of patient assessment. With this method, it is possible to determine how many times and how much urine the patients produce within 24 hours, and the amount of fluid they take out within the same time period. In this study, early diagnosis and necessary measures of possible symptoms (that were found to be urge urinary incontinence as the most common one in our study) caused by aging and menopause which are among the predisposing factors of pelvic floor dysfunction, were aimed.

MATERIALS and METHODS

In this study, 30 women aged between 20 and 70 years with various complaints were selected and previously prepared survey was applied to all of them. Within the framework of the obtained results, the age range, frequency and stages of pelvic floor disorder and its symptoms were investigated. The women included in the study were in premenopausal and menopausal period and their situations with respect to pelvic floor dysfunction were evaluated. Patients with chronic disease such as chronic medication and soft tissue disease (4 patients), patients who underwent pelvic floor surgery (2 patients), who received radio therapy (3 patients), and who received chronic medication / soft tissue disease (5 patients) were excluded from the study to eliminate extrinsic risk factors leading to pelvic dysfunctions. Based on the answers obtained, frequency table and the statistical analysis were performed. The T-Test was performed using Prism software (GraphPad, San Diego, CA) / Microsoft Excel 2010® from / hand calculations.

RESULTS

1. Frequency Table

As shown in Table 1, the age distribution of the participants were 20-30 years (3.3%), 31-40 years (26.7%), 41-50 years (36.7%), 51-60 years (30%), and 61-70 years (3.3%), while 40% of the participants were in the premenopausal period and 60% were in the postmenopausal period. When the complaints of the participants were examined, it was revealed that 20% had complaints of mass, 26.7% had complaints of urinary incontinence, 30% had complaints of urgency, 16.7% had complaints of voiding, and 6.7% had complaints of fecal leakage (Table 1).

Table 1. Frequency Table of Demographic Characteristics

Variable	Group	f	Ratio (%)	Cumulative Ratio (%)
Age	20-30 Age	*1*	*3.3*	3.3
	31-40 Age	*8*	*26.7*	30.3
	41-50 Age	*1*	*36.7*	66.7
	51-60 Age	*1*	*30.0*	96.7
	61-70 Age	*9*	*3.3*	100.0
		1		
Menopause Status	Pre menopause (20-45 Age)	*1*	40.0	40.0
		2		
	Post Menopause (45-65 Age)		60.0	100.0
		1		
		8		
Complaint	Mass Complaint	*6*	20.0	20.0
	Urinary Incontinence	*8*	26.7	46.7
	Feeling of Urgency	*9*	30.0	76.7
	Urination Disorder	*5*	16.7	93.3
	Fecal Incontinence	*2*	6.7	100.0

2. T-Test

The t-test was performed to see if there was a significant difference between the complaints of the patients based on the menopause status. The analysis revealed that complaints of women before and after menopause were statistically meaningful (Table 2).

Table 6. The t-Test Results of the Complaints Based on Menopause Status

	Menopause Status	N	$\bar{x}$	ss	sd	t	P
Complaint	Premenopause	*12*	1.50	0.522	28	-6.862	0.00
	Postmenopause	*18*	3.39	0.850			

As shown in Table 2, average of the 12 participants in the premenopausal period was 1.50 in terms of complaints, while the average of 18 participants in the postmenopausal period was 3.39 for the same parameter. According to these results, the complaints of urinary incontinence are generally more common among women experienced the menopausal period. The probability value for the 95% confidence interval was smaller than 0.05 (P = 0,000). Therefore, a statistically significant difference was found between the means of the groups. In this case, premenopausal and postmenopausal women's complaints may be interpreted as different from each other.

DISCUSSION

The analysis of the results reveal that complaints of women before and after menopause are significantly different. The results also suggest that feeling urgency is one of the most common complaints, and that the menopausal status needs to be monitored for early diagnosis and proper treatment of this disorder.

Pelvic floor dysfunction is a pathological condition that leads to urinary and anal incontinence, prolapse and serious deterioration of the quality of life. The frequency of detection varies between 17%-45%. Similarly, surgeries performed for uterovaginal prolapse constitute 20% of the major surgeries.

Pelvic floor dysfunctions can be seen as a single symptom such as pelvic compression or vaginal mass. In some cases, loss of vaginal support directly affects the bladder and urethra function, leading to obvious symptoms. In other cases, the relationship is less pronounced. It is not surprising that stress urinary incontinence is accompanied by a table of cases with moderate prolapse (16). The cases with severe prolapse also experience defecation problems. Defecation problems are the result of a decrease in the posterior vaginal wall support. While the rate of fecal incontinence in the community is around 1-2%, 7-31% of the patients with prolapse report fecal incontinence. The occasional coexistence of fecal incontinence and pelvic organ prolapse is explained by the effects of the same risk factors in the etiology. Approximately one third of the patients with uterovaginal prolapse present with obstructive defecation. Such urinary incontinence requires additional examination methods such as advanced prolapse cases. However, most patients with isolated rectocele have no defecation problem. Therefore, such cases do not matter in the clinic.

In our study, complaints of the patients before and after menopause were found meaningful. The results reveal that feeling urgency is one of the most common complaints of women with pelvic floor disorders. Menopausal status should be watched carefully for early detection and appropriate therapy of this disorder.

REFERENCES

1. Emge LA, Durfee R. Pelvic Organ Prolapse: Four Thousand Years of Treatment. Clinical Obstetrics and Gynecology 1966; 9 (4): 997-1032.

2. Herschorn S. Female Pelvic Floor Anatomy: The Pelvic Floor, Supporting Structures, and Pelvic Organs. Rev Urol 2004; 6 (Suppl 5): 2-10.

3. Behera MA. Uterus anatomy. In: Gest TR (editor). [Internet]. 2015 Jul, Available from: https://emedicine.medscape.com/article/1949215-overview [accessed 21 February 2019].

4. Barsoom RS, Sinert RH. Uterine prolapse in emergency medicine. In: Lo BM (editor) Medscape [Internet]. 2018 Aug, Available from: https://emedicine.medscape.com/article/797295-overview [accessed 21 February 2019].

5. Singh N, Huang K-G, Kijjadip T. Cervical Myomatous Polyp Leading to Third Degree Uterine Prolapse in Virgin Lady With Intact Hymen. J Womens Health Issues Care 2015; 4 (1). doi:10.4172/2325-9795.1000175.

6. Doshani A, Teo REC, Mayne CJ, Tincello DG. Uterine Prolapse. BMJ (Clinical Research Ed.) 2007; 335 (7624): 819-23. doi: 10.1136/bmj.39356.604074.BE.

7. Gjerde JL, Rortveit G, Muleta M, Adefris M, Blystad A. Living with Pelvic Organ Prolapse: Voices of Women from Amhara Region, Int Urogynecol J. 2017; 28 (3): 361-6. doi: 10.1007/s00192-016-3077-6.

8. Corton MM. Anatomy of Pelvic Floor Dysfunction. Obstet Gynecol Clin North Am 2009; 36 (3): 401-19. doi: 10.1016/j.ogc.2009.09.002.

9. Jundt K, Peschers U, Kentenich H. The Investigation and Treatment of Female Pelvic Floor Dysfunction. Dtsch Arztebl Int 2015; 112 (33-34): 564-74. doi: 10.3238/arztebl.2015.0564.

10. Özengin N, Çankaya H, Duygu E, Uysal MF, Bakar Y. The Effect of Pelvic Organ Prolapse Type on Sexual Function, Muscle Strength, and Pelvic Floor Symptoms in Women: A Retrospective Study. Turk J Obstet Gynecol 2017; 14 (2): 121-7. doi: 10.4274/tjod.45722.

11. Gültekin E, Bakar RZ. XV. Yüzyıl Türkçe Tıp Kitabı Yâdigâr-ı İbn-İ Şerîf'te "Rahmin Aşağı İnip Kapanması" Hastalığı ve Bu Hastalığa Modern Tıp Açısından Bir Bakış. Lokman Hekim Dergisi, 2016; 6 (2), 61-4.

12. Nygaard I, Barber MD, Burgio KL, Kenton K, Meikle S, Schaffer J, et al. Prevalence of Symptomatic Pelvic Floor Disorders in US Women. JAMA, 2008; 300 (11), 1311-6. doi: 10.1001/jama.300.11.1311.

13. Weber MA, Kleijn MH, Langendam M, Limpens J, Heineman MJ, Roovers JP. Local Oestrogen for Pelvic Floor Disorders: A Systematic Review. PloS One 2015; 10 (9): e0136265. doi: 10.1371/journal.pone.0136265.

14. Klein, MC., Gauthier RJ, Robbins JM., Kaczorowski J, Jorgensen SH, Franco ED, et al. (1994). Relationship of Episiotomy to Perineal Trauma and Morbidity, Sexual Dysfunction, and Pelvic Floor Relaxation. Am J Obstet Gynecol. 1994; 171 (3): 591-8.

15. Theofrastous JP, Swift SE. The Clinical Evaluation of Pelvic Floor Dysfunction. Obstet Gynecol Clin North Am 1998; 25 (4): 783-804.

16. Swithinbank L. Female Urinary Symptoms: Age Prevalence in a Community Dwelling Population Using a Validated Questionnaire. Neurourol Urodyn 1997; 16: 432-4.