STUDYING THE RISK FACTORS OF STRESS URINARY CONTINENCE PROGRESS IN WOMEN

Dilnoza J. Saidzhalilova¹, Sardorbek A. Yuldashev², Dilufar N. Khodjaeva³

¹Doctor of Medical Sciences, Professor, Tashkent Medical Academy, Tashkent, Uzbekistan E-mail: dilnoza.saidjalilova@tma.uz
²Master's Degree, the Department of Obstetrics and Gynecology, Tashkent Medical Academy, Tashkent, Uzbekistan E-mail: yuldashevsardorbek60@gmail.com
³Ph.D., Associate Professor, Tashkent Medical Academy, Tashkent, Uzbekistan E-mail: dilufar.xodjaeva@tma.uz

ANNOTATION

Research works published in the past decades provided us with new insights into risk factors for stress urinary incontinence (SUI) in women. The prevalence of stress urinary incontinence (SUI) in the world is 30-40%. Risk factors such as age and obesity diabetes played a significant role in developing different urinary incontinence forms. However, findings regarding the role of hormonal changes were inconsistent. Obesity showed a detrimental impact on SUI development, while weight reduction was proven to reduce SUI. SUI in women in Uzbekistan is widespread and occurred in 32% of women. Urinary incontinence was a topical medical and socio-economic problem. For many women, it caused anxiety, discomfort and negatively affected the quality of life related to health. Stress urinary incontinence had a reasonably strong effect on social activity and quality of life in 92% of women. Identifying risk factors for SUI can facilitate prevention strategies to reduce SUI prevalence among women.

Keywords: SUI, Genital prolapse, Women, Multiparous, Survey

I. INTRODUCTION

The prevalence of stress urinary incontinence in the world showed the results of 30-40%. Stress urinary incontinence (SUI) in women occurred in 50-75% after childbirth; in 10-20%, they were combined with pelvic organ prolapse (POP), which required surgical treatment (1). In Uzbekistan's population, SUI in women widespread and occurred in 32%, which was apparently due to high parity and lifestyle (2). Stress urinary incontinence had a reasonably strong effect on social activity and quality of life in 92% of women (3). For many women, SUI caused anxiety, discomfort and negatively affects their health-related quality of life. Often, SUI progressed against the background of pelvic organ prolapse, decreased elasticity of the ligamentous apparatus, and also a weakness of the pelvic floor muscles.

Some researchers (4) believe that the predisposing factors for SUI development were prolonged labour, labour complicated by the soft birth canal's traumatism, post-term pregnancy, large fetus, diabetes mellitus, obesity, chronic colitis, operations on the pelvic organs, etc. Often, the disease might be associated with the congenital inferiority of the pelvic floor tissues. It should be noted that in older women, SUI often associated with estrogen deficiency, heavy physical activity, etc. About 29% of women who visit a urologist or gynecologist annually indicated urine excretion symptoms during physical exertion, the so-called genuine or stressful involuntary urinary incontinence (5). The problem of urinary incontinence revealed an increasing disagreement of opinions and raised many questions. Several theories for SUI development were developed, such as pressure transmission, sphincter insufficiency, hammock theory, integral theory. Moreover, none of them thoroughly explained all aspects of the onset and development of pathology. Diagnostics and treatment remained the subject of discussion, which determined the need to continue research in this direction.
II. MATERIALS AND METHODS

The material included a study of 109 women, of which 21 women underwent surgical treatment. We studied complaints, life, obstetric and gynecological anamnesis, past diseases. General and gynecological examinations were carried out: an external examination of the genitals, examination of the cervix in the mirrors, vaginal examination, and the degree of prolapse of the pelvic organs. The cough test was assessed with a self-filled bladder. The analysis of the rhythm of daily urination and the volume of excreted urine was also carried out using urination diaries, filled in by the patient for three days. A general analysis of blood, urine, discharge from the cervical canal, vagina, and urethra was performed.

III. RESULTS

We conducted an anonymous survey of 109 women who applied to the private clinic's consultative polyclinic "NAJOD-SHIFO" for somatic pathology. Among respondents, it was possible to identify that 74 (68.9%) women noted signs of urinary incontinence, of which 71.6% (53) patients had the nature of stress urinary incontinence, 20.3% (15) - forced urinary incontinence, 5.4% (4) have urinary overflow incontinence, and 2.7% (2) have a mixed type of urinary incontinence (Fig. 1) The remaining 35 women did not have this pathology and made up the comparison group (control). The duration of the disease ranged from 2 to 9 years. When identifying the causes of urinary incontinence, 64.9% (48) of patients associated the development of complaints with heavy physical labour, and 35.1% (26) of patients with severe childbirth complicated by trauma.

![Figure 1. The structure of the types of urinary incontinence](image)

<table>
<thead>
<tr>
<th>Profession</th>
<th>Group with UI and genital prolapse (n = 74)</th>
<th>Group without UI and genital prolapse (n = 35)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>abs</td>
<td>%</td>
</tr>
<tr>
<td>Housewives</td>
<td>34</td>
<td>45,9</td>
</tr>
<tr>
<td>Workers of enterprises</td>
<td>16</td>
<td>21,6</td>
</tr>
<tr>
<td>Employees</td>
<td>19</td>
<td>25,7</td>
</tr>
<tr>
<td>Retirees</td>
<td>5</td>
<td>6,8</td>
</tr>
</tbody>
</table>

Table 1. Occupation in women with stress urinary incontinence and genital prolapse
Among the women under study with urinary incontinence, urban dwellers predominated - 74.3% (55) women, while rural women were almost three times less - 25.7% (19). A similar trend was observed in the control group. This was due to the location of the clinic in the city centre. The study of the type of profession (Table 1) made it possible to establish that in the group of women with UI and genital prolapse, housewives predominated, who accounted for 45.9% (34), in second place were female workers performing heavy physical labour in production - 21.6% (16) and employees - 25.7% (19) and a smaller number were pensioners - 6.8% (5). In the group of women without UI and genital prolapse, housewives also predominated (42.9%). They did not differ significantly from the values of the group of women with UI and genital prolapse. Whereas, in the comparison group of female workers performing heavy physical labour, it was almost two times less than in the group with the studied pathology and amounted to 11.4% (4). Accordingly, more employees in the group without UI and genital prolapse - 37.1% (13). The rest were pensioners - 8.6% (3).

The study of the parity of childbirth showed (Table 2) that in the group of women with UI and genital prolapse, the majority were multiparous (re-giving birth) and multiparous - 94.6% and 60.8%, respectively. In the group of women without this pathology, the majority also had repeated births, but there were 2.1 times fewer births than in women with UI and genital prolapse.

The study of the somatic history in women with UI and genital prolapse (Table 3) revealed such diseases as varicose veins of the lower extremities - in 78.4% (58), hypertension - in 21.6% (16), heart disease - in 14.9% (11), gastrointestinal tract diseases - in 25.7% (19), obesity - in 12.2% (9). In a comparative aspect, in the group of women without UI and genital prolapse, varicose veins and gastrointestinal diseases were 2.3 and 1.5 times less frequent (p >0.05).

Thus, one of the main reasons for UI and genital prolapse was the weakening of the pelvic organs' support by the pelvis's supporting system. The mechanism by which these muscles and ligaments were weakened is still uncertain. However, we had identified risk factors: multiple births; pathological childbirth, accompanied by ruptures of the muscles of the pelvic floor, perineum and urogenital diaphragm; chronic constipation, accompanied by straining.
IV. CONCLUSION

Analysis of the data of patients with urinary incontinence and genital prolapse showed that most patients were multiparous (60.8%), female workers performing heavy physical labour at work (21.6%). The most frequently diagnosed somatic diseases were varicose veins of the lower extremities (78.4%), gastrointestinal diseases (25.7%) and hypertension (21.6%). The leading causes of the disease were childbirth, complicated by trauma to the walls of the vagina, perineum as a result of the birth of a large fetus, and weightlifting.

CONFLICT OF INTERESTS AND CONTRIBUTION OF AUTHORS

The authors declare the absence of obvious and potential conflicts of interest related to the publication of this article and report on the contribution of each author.

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LIST OF REFERENCES