ONLINE FIRST

This is a provisional PDF only. Copyedited and fully formatted version will be made available soon.

POLISH GYNECOLOGY
GINEKOLOGIA POLSKA
ORGAN POLSKIEGO TOWARZYSTWA GINEKOLOGICZNEGO
THE OFFICIAL JOURNAL OF THE POLISH GYNECOLOGICAL SOCIETY

**ISSN:** 0017-0011

**e-ISSN:** 2543-6767

# Investigation of lower urinary system symptoms in patients with isolated posterior compartment prolapsus: a cross-sectional study

**Authors**: Burcu Serhanoğlu, Mustafa Cengiz Dura, Şükrü Yıldız, Zınar Serhanoğlu, Berk Gürsoy, Murat Ekin

**DOI:** 10.5603/gpl.101029

**Article type:** Research paper

**Submitted:** 2024-06-06

**Accepted:** 2024-08-30

**Published online:** 2024-10-24

Articles in "Ginekologia Polska" are listed in PubMed.

ORIGINAL PAPER / GYNECOLOGY

# Investigation of lower urinary system symptoms in patients with isolated posterior compartment prolapsus: a cross-sectional study

**Burcu Serhanoğlu, Mustafa Cengiz Dura, Şükrü Yıldız, Zınar Serhanoğlu, Berk Gürsoy, Murat Ekin**

*Bakırkoy Dr. Sadi Konuk Education and Research Hospital, Department of Gynecology, Istanbul, Türkiye*

## ABSTRACT

**Objectives:** The effects of posterior vaginal wall prolapse on pelvic floor function have not been adequately investigated, particularly for lower urinary tract symptoms (LUTS). We aimed to investigate the effects of isolated posterior compartment prolapse on LUTS.

**Material and methods:** The study was conducted as a prospective cross-sectional study with female patients with isolated posterior prolapse who presented with any LUTS. All patients were evaluated according to the POP-Q system. A total of 41 patients with stage 2–3 isolated pelvic organ prolapse were included in the study group. The control group consisted of a total of 41 patients without significant pelvic organ prolapse. Study and control groups were compared in terms of demographic data and UDI-6, IIQ-7, ICIQ-FLUTS, LUTS QoL, FLUT Sex scales.

**Results:** The incidence of SUI, UI, frequency, nocturia, abnormal evacuation, difficulty in passage and vaginal farting in the study group was found to be statistically significantly higher than the control group. In the study group, the total scores on the UDI-6, IIQ-7, and LUTS QoL measures were significantly higher. While the total scores of the ICIQ-FLUTS Scale “Filling” and “Incontinence” subgroups were significantly higher in the study group, no significant difference was found in the “voiding” subgroup. There was no statistically significant difference between the two groups in terms of their total FLUT Sex scores.

**Conclusions:** It has been shown that isolated posterior prolapse may be associated with an increase in lower urinary tract system symptoms and a decrease in quality of life.

**Keywords:** isolated posterior vaginal prolapse; lower urinary tract sympto; urogynecology

**Corresponding author**

Berk Gürsoy

Bakırkoy Dr. Sadi Konuk Education and Research Hospital,Department of Gynecology, Istanbul, 34173 Istanbul, Türkiye

e-mail: berk.gursoy.93@gmail.com

## INTRODUCTION

The pelvic floor is a holistic anatomical system that works in a certain harmony. Any damage to any component of the pelvic floor can disrupt this alignment [1]. Pelvic organ prolapse (POP) is the protrusion of one or more female pelvic organs outside the pelvis through the vagina, including the uterus, bladder, and intestines, which causes the pelvic organs to descend toward the vaginal wall [2]. The main symptoms associated with posterior POP are pelvic pressure sensation, constipation, defecation with reduction, faecal incontinence, sexual dysfunction. The most specific, but rare, sign of posterior prolapse is a need to apply pressure on the vagina, rectum, or perineum to complete defecation [3, 4].

The relationship between anterior vaginal wall prolapses and lower urinary tract symptoms (LUTS) has been known for a long time, and data on the effect of the posterior vaginal wall prolapses on LUTS are scarce [5]. Posterior compartment defects are present in 76% of women with pelvic organ prolapse [6]. Despite the high prevalence of posterior compartment defects, isolated posterior compartment defects are extremely rare and their effects on pelvic floor function have not been adequately studied, particularly for lower urinary tract symptoms (LUTS) [7]. On the consequences of isolated posterior compartment abnormalities on voiding, there is limited available data. In the study of Cole et al. [8] based on the hypothesis that posterior compartment defects may cause lower urinary tract symptoms due to changes in functional anatomy, they reported that 7 patients' symptoms improved after the repair of the posterior defect in 8 symptomatic patients.

## Objectives

In this study, we aimed to investigate the effects of isolated posterior compartment prolapse on LUTS. We postulated, based on our clinical experience, that in cases of severe posterior abnormalities, vaginal mass effects could contribute to voiding obstruction via vaginal compression.

## MATERIAL AND METHODS

The study was conducted with female patients aged between 30–70 years who applied to urogynecology outpatient clinic in Bakırkoy Dr. Sadi Konuk Training and Research Hospital, Gynecology and Obstetrics Clinic between March 2021 and August 2022. After the approval of the local ethics review board with decision number 2021-07-11 on 05.04.2021, the study was started. Informed consent was obtained from the patients. The patients were examined prospectively. Demographic data and past medical and surgical histories (age, parity, menopausal status, tobacco use, obstetric history, body mass index (BMI), accompanying comorbidities) were recorded. All patients were evaluated by a specialist experienced in urogynecology.

Evaluation of the patients included a standard clinical examination and a urogynecological examination with detailed evaluation of the anterior, apical, and posterior vaginal compartments. Prolapse was assessed and recorded using the POP-Q staging system. **Forty-one** patients with isolated posterior prolapse without clinically significant anterior and apical compartment defects, classified as stage 2 in 20 patients and stage 3 in 21 patients were included in the study. The control group consisted of 41 patients without significant pelvic organ prolapse. Women with stage 2 and above anterior and apical defects, women with a history of urogynecological surgery or any treatment for LUTS, and women with diseases that may cause lower urinary tract symptoms such as neurological disease, myoma uteri, endometriosis, and adnexal mass were excluded from the study.

To assess LUTS and sexual well-being, patients were administered the Urinary Distress Inventory (UDI-6), Incontinence Impact Questionnaire (IIQ-7), ICIQ-FLUTS, LUTS QoL, and FLUTS Sex Scale questionnaires. The UDI-6 was evaluated on a percentile basis, with a minimum score of 0 and a maximum score of 100. The IIQ-7 questionnaire scoring ranged from

a minimum of 0 to a maximum of 21, while the ICIQ-FLUTS questionnaire was assessed using three subscales that examined different symptoms. These subscales were categorized as 'Filling', 'Voiding', and 'Incontinence' based on the corresponding questions, with scoring ranges of 0–16, 0–12, and 0–20, respectively. Additionally, the LUTS QoL survey focused on the impact of incontinence on quality of life by assessing social consequences, with scores ranging from 19 to 76. To evaluate the effect of urinary incontinence on sexual function and its impact on quality of life in women, the FLUTS Sex Scale was used, with scores ranging from 0 to 14. Higher scores across all questionnaires indicate increased symptom severity and a decline in quality of life. Responses to the LUTS questionnaire, which is part of the urogynecological evaluation, were also evaluated. LUTS surveys examined questions from these aspects; stress urinary incontinence (SUI), urge incontinence (UI), frequency, nocturia, intermittent flow, abnormal voiding, as well as passage strain, vaginal farting, dyspareunia, and pelvic pain were also recorded.

To examine the impact of urine incontinence on QOL, the incontinence impact questionnaire (IIQ) and the urogenital distress inventory (UDI) were created and combined [9]. The Second International Consultation on Incontinence suggests the use of both surveys [10]. The Sixth International Consultation on Incontinence (ICI) advises using questionnaires from the International Consultation on Incontinence Questionnaire (ICIQ) modules when evaluating LUTS in clinical practice and for research [11].

For the evaluation of LUTS and sexual functions, Turkish validated urogenital distress inventory (UDI-6) and incontinence impact questionnaire (IIQ-7) were compared between study and control groups using ICIQ-FLUTS, LUTS QoL, FLUT Sex scales [12, 13].

After the effect power was calculated as 0.41 with the G-Power sample number calculation program, it was calculated that it would be appropriate to include a total of 77 patients in the study with a confidence interval of 80% and a sensitivity of $p < 0.05$.

While evaluating the findings obtained in the study, NCSS (Number Cruncher Statistical System) 2020 Statistical Software (NCSS LLC, Kaysville, Utah, USA) program was used for statistical analysis. While evaluating the study data, quantitative variables were shown with mean, standard deviation, median, min and max values, and qualitative variables were shown with descriptive statistical methods such as frequency and percentage. Shapiro Wilks test and Box Plot graphics were used to evaluate the conformity of the data to the normal distribution.

Student's t-test was used for quantitative two-group evaluations with normal distribution. The Mann-Whitney-U test was used to evaluate the non-normally distributed variables according to two groups. Logistic regression analysis was used in multivariate assessments. Chi-square test, Yates Continuity Correction and Fisher's Exact test were used to compare qualitative data. The results were evaluated at the 95% confidence interval and the significance level of $p < 0.05$ (Fig. 1).

## RESULTS

The ages of the cases ranged from 31 to 68, with an average of 49.20 ± 7.71 years. The mean age of the study and control groups did not show a statistically significant difference ($p > 0.05$). The BMI values of the study group were found to be statistically significantly higher ($p = 0.018$; $p < 0.05$) (Tab. 1).

The increasing numbers of delivery, especially vaginal delivery and traumatic vaginal delivery in cases with isolated posterior prolapse were found to be statistically significantly higher than the control group ($p = 0.001$; $p < 0.01$). The number of cesarean deliveries in cases with isolated posterior prolapse was found to be statistically significantly lower than the control group ($p = 0.001$; $p < 0.01$) (Tab. 1).

In cases with isolated posterior prolapse, the incidence of SUI, UI, frequency, nocturia, abnormal evacuation, difficulty in passage, and vaginal farting was found to be statistically significantly higher than the control group (respectively; $p = 0.004$; $p = 0.001$; $p = 0.001$; $p = 0.015$; $p = 0.43$, $p = 0.026$, $p = 0.001$, $p < 0.05$ (Tab. 3). Intermittent flow and pelvic pain complaints in the study and control groups did not show a statistically significant difference ($p > 0.05$) (Tab. 2).

The total scores of the cases with isolated posterior prolapse in the ICIQ-FLUTS Scale “Filling” and “Leakage” sub-dimensions were found to be statistically significantly higher than the control group ($p = 0.001$; $p = 0.001$; $p < 0.01$). There was no statistically significant difference between the total scores of the two groups in the ICIQ-FLUTS Scale "Voiding" sub-dimension ($p > 0.05$). The total scores of the patients with isolated posterior prolapse from the LUTS QoL Scale were found to be statistically significantly higher than the control group ($p = 0.001$; $p < 0.01$). There was no statistically significant difference between the total scores of the cases with isolated posterior prolapse from the FLUT Sex Scale ($p > 0.05$) (Tab. 3).

The total scores of patients with isolated posterior prolapse from the Incontinence Impact Questionnaire (IIQ-7) and Urogenital Distress Inventory (UDI-6) Scale were found to be statistically significantly higher than the control group ($p = 0.001$; $p < 0.01$), ($p = 0.001$; $p < 0.01$).

To determine the effect of the BMI parameter, which was found to be significantly different between the study and control groups, on statistics, on the grounds that it might be a confounding factor, we evaluated the effects of BMI and IIQ-7, UDI-6, ICIQ-FLUTS filling score and leakage score subgroups, LUTS QoL score, and FLUT sex score using logistic regression analysis.

While the regression results of the confounding variable BMI parameter and UDI-6 and LUTS QoL scores remained statistically significant, no significant difference was found in the ICIQ-FLUTS scale filling and leakage sub-dimensions.

## DISCUSSION

The relationship between anterior vaginal wall prolapses and LUTS has been known for a long time, and data on the effect of isolated posterior vaginal wall prolapses on LUTS are scarce. Isolated posterior compartment defects are rare and often coexist with other compartment defects. Therefore, the relationship between LUTS and posterior compartment defects can easily be overlooked. There are also several reasons for this. First, there is a misconception that lower urinary tract symptoms are limited to anterior defects and therefore a detailed posterior compartment evaluation is skipped in patients presenting with LUTS; second is the difficulties in estimating the direct effects of posterior defects on LUTS. The integrity of the pelvic floor is made up of a static and dynamic structure formed by the interplay of all the many parts that make up the pelvis according to the Integral Theory, prolapse and the majority of pelvic floor symptoms, such as urinary stress, urge and abnormal bowel and bladder emptying, as well as certain types of pelvic pain, result from laxity in the vagina or its supporting ligaments as a result of altered connective tissue [14–16]. As a result, even a mild prolapse that compromises its integrity might cause serious discomfort [17].

Kilic et al. [18] retrospectively evaluated 60 patients with isolated posterior compartment prolapse, including 8 stage 1, 33 stage 2, and 19 stage 3 isolated posterior compartment prolapse, using the LUTS and UDI-6 questionnaires. They noted significant elevations in UDI-6 total scores in the study group, indicating that isolated posterior compartment prolapse may be

associated with LUTS [18]. Based on this study, we aimed to investigate the effects of isolated posterior compartment prolapse on LUTS. As a result of our study, despite the regression analysis of BMI, which is thought to be a confounding factor, we found a significant increase in the UDI-6 total score, and we obtained results similar to those of Kilic et al. [18] In our study, unlike Kilic et al., we aimed to evaluate the negative effects of isolated posterior prolapses on quality of life and sexual functions by also examining the parameters of UDI-6, ICIQ-FLUTS, LUTS QoL and FLUT Sex Scale.

Cole et al. [8] evaluated 23 patients with isolated posterior compartment prolapse in terms of LUTS and urodynamic parameters. Fifteen women had stage 3 and 8 women had stage 2 defects. They grouped lower urinary tract symptoms as storage, voiding, and mixed symptoms. Nine of the patients reported storage only, 1 voiding only, 12 mixed symptoms, while only 1 patient reported no LUTS [8]. In our study, we compared a total of 41 patients with isolated posterior prolapse, stage 2 in 20 patients and stage 3 in 21 patients, with 41 patients without prolapse. We grouped the lower urinary system symptoms under 3 titles as filling, voiding and incontinence. While we found the filling and incontinence symptoms to be statistically significantly higher in patients with isolated posterior prolapse, we did not detect a significant difference between the two groups in terms of voiding symptoms. When we subjected the statistical results to regression analysis, we did not find statistical significance in all three subgroups.

Myers et al. [19] examined urodynamic parameters in patients with posterior defects to assess whether isolated posterior prolapses mask SUI. They reported that stage 3 posterior prolapse may increase the maximum urethral closure pressure and mask SUI [19]. Since we built the hypothesis of our study on symptomatology, we did not examine urodynamic parameters, which are mechanical findings. However, the study can be improved by examining the urodynamic parameters in patients with a high score in the UDI-6 scale UDI-S subgroup. One of the limitations of our study is the lack of urodynamic evaluation to compare with the existing literature.

There are few studies in the literature on posterior compartment prolapse, and there is no research on the effect of posterior compartment prolapse on quality of life and sexual functions. The original aspect of our study is that it is the only study in literature examining the effect of isolated posterior prolapse on LUTS, quality of life and sexual functions. Although BMI is a confounding factor, we determined the social and psychological negative effects of isolated

posterior prolapse by regression analysis. Although there was no statistically significant difference between the total scores of the FLUT Sex scale between the two groups, the high score in the study group and the level of significance of the ‘p’ value suggest that this variable may also be significant in a larger series.

With the elimination of the BMI confounding variable that may affect the aforementioned symptoms, the significance between the two groups in terms of ICIQ-FLUTS filling and incontinence subgroups and sexual functions disappeared. However, more studies with larger series are needed to make a more precise interpretation.

The strength of our study is that it reveals the relationship between LUTS and isolated posterior compartment defects, which are rarely studied in the literature but frequently encountered in clinical practice. In terms of standardization of the evaluation, all patients are examined and evaluated in a single center by a single experienced urogynecologist. One of the limitations of our study is the lack of urodynamic evaluation to compare with the existing literature. The presence of BMI as a confounding variable between groups is another limitation, even though regression analysis was to be done.

## CONCLUSIONS

Women with posterior prolapse may be asymptomatic or present to the clinician with anorectal, urinary or sexual symptoms. In our study, it was shown that isolated posterior prolapses may be associated with urinary system symptoms as well as anorectal symptoms. This relationship may be overlooked by the clinician. These women should be examined in more detail in terms of lower urinary tract symptoms.

## Article information and declarations

***Acknowledgments***

None.

***Funding***

None.

***Data availability statement***

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

***Ethics statement***

All procedures performed in studies involving human participants were accordance with the ethical standards of institutional and/or national research committees and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Ethical approval for this study was obtained from the Ethical Committee of Health Sciences University, Bakirkoy Dr. Sadi Konuk Training and Research Hospital (Approval number: 2021-07-11). A detailed informed consent was obtained from all patients.

***Authors contributions***

Conceptualization — EM, GB, YS, SB; data curation — EM, SZ, DM-C, GB; formal analysis — SB, DM-C, SZ, YS; methodology — EM, GB, YS, SB; software — SZ, DM-C, YS, EM; validation — GB, YS, SB; visualization — EM, DM-C, SB, GB, SZ; writing, original draft — EM, YS, GB, SB, DMC; writing, review, editing — SB, GB, DM-C, SZ; supervision — SB, Yildiz SB, GB; project administration — EM, GB, DM-C, YS, SB, SZ. All authors agree with the content of the manuscript. The authors have no financial or non-financial conflicts of interest regarding this article to disclose.

***Acknowledgments***

None.

***Funding***

None.

***Conflict of interest***

All authors are in agreement with the content of the manuscript. The authors have no financial or non-financial conflicts of interest regarding this article to disclose.

**REFERENCES**

1. Nieuwoudt EM Pelvic organ prolapse and pelvic floor muscle strength. University of the Free State; 2006. https://scholar.ufs.ac.za/server/api/core/bitstreams/7f61d516-fea6-4cf9-a072-b354caf0981d/content.
2. Chung SH, Kim WB. Various Approaches and Treatments for Pelvic Organ Prolapse in Women. J Menopausal Med. 2018; 24(3): 155–162, doi: 10.6118/jmm.2018.24.3.155, indexed in Pubmed: 30671407.

3. Ellerkmann RM, Cundiff GW, Melick CF, et al. Correlation of symptoms with location and severity of pelvic organ prolapse. Am J Obstet Gynecol. 2001; 185(6): 1332–7; discussion 1337, doi: 10.1067/mob.2001.119078, indexed in Pubmed: 11744905.
4. Burrows LJ, Meyn LA, Walters MD, et al. Pelvic symptoms in women with pelvic organ prolapse. Obstet Gynecol. 2004; 104(5 Pt 1): 982–988, doi: 10.1097/01.AOG.0000142708.61298.be, indexed in Pubmed: 15516388.
5. Vitale SG, Laganà AS, Noventa M, et al. Transvaginal Bilateral Sacrospinous Fixation after Second Recurrence of Vaginal Vault Prolapse: Efficacy and Impact on Quality of Life and Sexuality. Biomed Res Int. 2018; 2018: 5727165, doi: 10.1155/2018/5727165, indexed in Pubmed: 29675427.
6. Guiahi M, Kenton K, Brubaker L. Sacrocolpopexy without concomitant posterior repair improves posterior compartment defects. Int Urogynecol J Pelvic Floor Dysfunct. 2008; 19(9): 1267–1270, doi: 10.1007/s00192-008-0628-5, indexed in Pubmed: 18496636.
7. Davis K, Kumar D. Posterior pelvic floor compartment disorders. Best Pract Res Clin Obstet Gynaecol. 2005; 19(6): 941–958, doi: 10.1016/j.bpobgyn.2005.08.010, indexed in Pubmed: 16198148.
8. Cole EE, Kaufman MR, Scarpero HM, et al. The effects of isolated posterior compartment defects on lower urinary tract symptoms and urodynamic findings. BJU Int. 2006; 97(5): 1024–1026, doi: 10.1111/j.1464-410X.2006.06130.x, indexed in Pubmed: 16643484.
9. Shumaker SA, Wyman JF, Uebersax JS, et al. Health-related quality of life measures for women with urinary incontinence: the Incontinence Impact Questionnaire and the Urogenital Distress Inventory. Continence Program in Women (CPW) Research Group. Qual Life Res. 1994; 3(5): 291–306, doi: 10.1007/BF00451721, indexed in Pubmed: 7841963.
10. Rathod SR, Vyas N, Sorani DM Validation of Gujarati Version of International Physical Activity Questionnaire. Int J of Health Sci Res 2018, 8(1):122-128. https://www.ijhsr.org/IJHSR_Vol.8_Issue.1_Jan2018/18.pdf (2018).
11. Abrams P, Cardozo L, Wagg A, et al. Incontinence: 6th International Consultation on Incontinence, Tokyo, September 2016. In: 2017: International Continence Society. ; 2017.

12. Cam C, Sakalli M, Ay P, et al. Validation of the short forms of the incontinence impact questionnaire (IIQ-7) and the urogenital distress inventory (UDI-6) in a Turkish population. Neurourol Urodyn. 2007; 26(1): 129–133, doi: 10.1002/nau.20292, indexed in Pubmed: 17083117.
13. Gungor Uğurlucan F, Yasa C, Yuksel Ozgor B, et al. Validation of the Turkish version of the ICIQ-FLUTS, ICIQ-FLUTS long-form, ICIQ-LUTS quality-of-life, and ICIQ-FLUTS sexual functions. Neurourol Urodyn. 2020; 39(3): 962–968, doi: 10.1002/nau.24302, indexed in Pubmed: 32032453.
14. Petros PE, Ulmsten UI. An integral theory of female urinary incontinence. Experimental and clinical considerations. Acta Obstet Gynecol Scand Suppl. 1990; 153: 7–31, doi: 10.1111/j.1600-0412.1990.tb08027.x, indexed in Pubmed: 2093278.
15. Petros PEP, Woodman PJ. The Integral Theory of continence. Int Urogynecol J Pelvic Floor Dysfunct. 2008; 19(1): 35–40, doi: 10.1007/s00192-007-0475-9, indexed in Pubmed: 17968480.
16. Liedl B, Inoue H, Sekiguchi Y, et al. Update of the Integral Theory and System for Management of Pelvic Floor Dysfunction in Females. European Urology Supplements. 2018; 17(3): 100–108, doi: 10.1016/j.eursup.2017.01.001.
17. Petros PE, Ulmsten U. Tests for 'detrusor instability' in women. These mainly measure the urethral resistance created by pelvic floor contraction acting against a premature activation of the micturition reflex. Acta Obstet Gynecol Scand. 1993; 72(8): 661–667, doi: 10.3109/00016349309021161, indexed in Pubmed: 8259755.
18. Kilic D, Guler T, Gokbel I, et al. EFFECTS OF ISOLATED POSTERIOR VAGINAL WALL PROLAPSE ON LOWER URINARY TRACT SYMPTOMS. J Gynecol Obstet Hum Reprod. 2021; 50(4): 102095, doi: 10.1016/j.jogoh.2021.102095, indexed in Pubmed: 33592348.
19. Myers DL, Lasala CA, Hogan JW, et al. The effect of posterior wall support defects on urodynamic indices in stress urinary incontinence. Obstet Gynecol. 1998; 91(5 Pt 1): 710–714, doi: 10.1016/s0029-7844(98)00049-0, indexed in Pubmed: 9572216.

**Figure 1.** Flow chart of the study

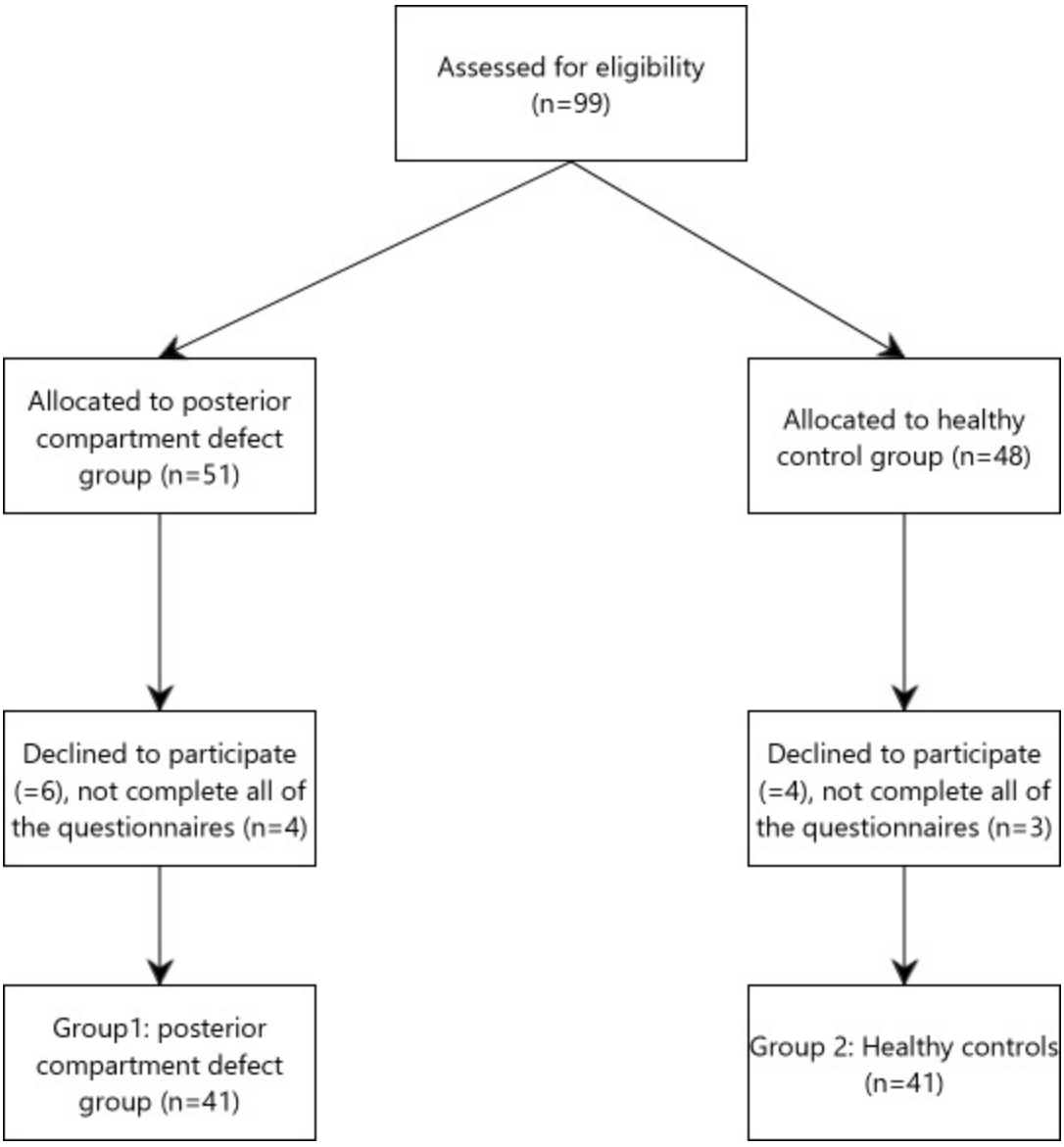


**Table 1.** Distribution of complementary features of cases according to the presence of isolated posterior prolapse

| | | **Posterior prolapse** | | |
|---|---|---|---|---|
| | | None (n = 41) | Yes (n = 41) | p |
| Age | Mean ± Sd | 49.02 ± 6.06 | 49.37 ± 9.15 | [a]0.843 |
| | Median (Min–Max) | 49 (36–61) | 48 (31–68) | |
| BMI | Mean ± Sd | 27.72 ± 5.18 | 30.48 ± 5.13 | [a]0.018* |
| | Median (Min–Max) | 26.7 (18.7–40.1) | 30.8 (19.5–44.4) | |

| | | | | |
|---|---|---|---|---|
| | Normal | 11 (26.8) | 5 (12.2) | |
| | Overweight | 19 (46.3) | 14 (34.1) | |
| | Obese | 11 (26.8) | 22 (53.7) | |
| Parity (birth number) | Mean ± Sd | 2.10 ± 1.14 | 3.00 ± 1.00 | [d]0.001** |
| | Median (Min–Max) | 2 (0–5) | 3 (1–6) | |
| Number of CS | Mean ± Sd | 0.59 ± 0.84 | 0.24 ± 0.58 | [d]0.001** |
| | Median (Min–Max) | 0 (0-3) | 0 (0-2) | |
| Vaginal delivery number | Mean ± Sd | 1.56 ± 1.34 | 2.78 ± 1.11 | [a]0.001** |
| | Median (Min–Max) | 1 (0–5) | 3 (1–6) | |
| Traumatic vaginal delivery history | No | 35 (85.4) | 17 (41.5) | [c]0.001** |
| | Yes | 6 (14.6) | 24 (58.5) | |

[a] Student -t Test; [c] Pearson Chi-Square Test; [d] Mann Whitney -U Test; **p < 0.01

**Table 2.** Comparison of the complaints of the cases according to the presence of isolated posterior prolapse

| | | Posterior prolapse | | p |
|---|---|---|---|---|
| | | None (n = 41) | Yes (n = 41) | |
| Complaints | SUI | 11 (26.8) | 24 (58.5) | [b]0.004** |
| | UI | 7 (17.1) | 22 (53.7) | [b]0.001** |
| | Frequency | 5 (12.2) | 22 (53.7) | [b]0.001** |
| | Nocturia | 17 (41.5) | 28 (68.3) | [b]0.015* |
| | Discontinuous flow | 3 (7.3) | 8 (19.5) | [b]0.105 |
| | Abnormal discharge | 2 (4.9) | 8 (19.5) | [b]0.043* |
| | Passage strain | 4 (9.8) | 12 (29.3) | [b]0.026* |
| | Pelvic pain | 2 (4.9) | 1 (2,4) | [e]1.000 |
| | Vaginal farting No | 31 (75.6) | 10 (24.4) | [b]0.001** |
| | Yes | 6 (14.6) | 25 (61.0) | |
| | Non-sexually active | 4 (9.8) | 6 (14.6) | |

[b]Fisher freeman Halton Test; [c]Pearson Chi-Square Test; [e]Fisher Exact Test; *p < 0.05; **p < 0.01

**Table 3**. Comparison of all scales according to the presence of isolated posterior prolapse

| | Posterior prolapse | | p |
|---|---|---|---|
| | None (n = | Yes (n = 41) | |

| | | | | |
|---|---|---|---|---|
| | | 41) | | |
| Filling (ICIQ-FLUTS) | Mean ± Sd | 2.17 ± 2.26 | 5.76 ± 3.64 | [d]0.001** |
| | Median (Min–Max) | 1 (0–10) | 6 (0–13) | |
| Voiding (ICIQ-FLUTS) | Mean ± Sd | 0.15 ± 0.53 | 0.32 ± 0.99 | [d]0.663 |
| | Median (Min–Max) | 0 (0–3) | 0 (0–5) | |
| Incontinence (ICIQ-FLUTS) | Mean ± Sd | 1.76 ± 2.9 | 6.17 ± 4.99 | [d]0.001** |
| | Median (Min–Max) | 0 (0–13) | 4 (0–17) | |
| FLUT Sex Scale score | Mean ± Sd | 0.43 ± 0.5 | 0.75 ± 0.73 | [d]0.068 |
| | Median (Min–Max) | 0.3 (0–1.8) | 0.8 (0–2.8) | |
| LUTS QoL Score | Mean ± Sd | 1.08 ± 0.22 | 1.73 ± 0.72 | [d]0.001** |
| | Median (Min–Max) | 1 (0.9–1.9) | 1.4 (1–3.5) | |
| IIQ-7 Score | Mean ± Sd | 0.73 ± 1.88 | 5.56 ± 6.40 | [d]0.001** |
| | Median (Min–Max) | 0 (0–9) | 3 (0–21) | |
| UDI-6 Score (%) | Mean ± Sd | 6.64 ± 10.63 | 30.35 ± 18.80 | [d]0.001** |
| | Median (Min–Max) | 0 (0–44.4) | 27.8 (0–72.2) | |

[d]Mann Whitney-U Test; **p < 0.01