Conservative Physiotherapy Approach to Stress Urinary Incontinence in a Postmenopausal Female: A Case Study

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Abstract— Stress urinary incontinence (SUI) is a common condition among postmenopausal women but is often underreported due to social stigma. This case report presents a 59-year-old female with urinary leakage during activities such as coughing and sit-to-stand transitions, persisting for three years. The patient was assessed using the Modified Oxford Grading Scale and the Questionnaire for Urinary Incontinence Diagnosis (QUID). Initial evaluation revealed pelvic floor muscle strength of Grade 3/5 and a QUID score of 27/36. A six-week physiotherapy program was implemented, consisting of pelvic floor muscle training through Kegel's exercises and core strengthening activities, administered five times per week. After the intervention, pelvic floor strength improved to Grade 4/5, and the QUID score decreased to 12/36, indicating a significant reduction in urinary incontinence symptoms and frequency of urination. This case highlights the effectiveness of conservative physiotherapy interventions as a first-line approach in the management of stress urinary incontinence among postmenopausal women.

Key words—Conservative management; Core strengthening; Kegel's exercise; Postmenopausal female; Stress urinary incontinence

Introduction

Menopause is a pivotal period in a woman's overall health and well-being. Urinary incontinence (UI) is a major social and clinical problem affecting more than 50% of postmenopausal women, and its prevalence continues to rise with advancing age and changing lifestyle factors such as reduced physical activity and sedentary behavior [1]. The International Continence Society defines UI as the complaint of any involuntary leakage of urine. It is broadly classified into three main types: (a) stress incontinence, characterized by involuntary urine leakage caused by increased intra-abdominal pressure during activities such as coughing, sneezing, or laughing; (b) urgency incontinence, a sudden and intense urge to urinate followed by involuntary leakage; and (c) mixed incontinence, which is a combination of stress and urgency urinary incontinence [2]. Although UI is not life-threatening, it negatively affects psychological, social, occupational, physical, and sexual aspects of women's lives. The peak prevalence is observed during the menopausal transition, largely due to estrogen deficiency, collagen loss, and reduced pelvic floor elasticity, which collectively contribute to pelvic floor dysfunction and incontinence [2]. The aim of this case study is to highlight the association between menopause and urinary incontinence and to demonstrate the effectiveness of conservative physiotherapy interventions in improving symptoms and quality of life.

Case Description

A 59-year-old female, homemaker by occupation, presented with complaints of urinary incontinence persisting for the past three years. She reported leakage of urine during activities such as coughing and sit-to-stand transitions, along with increased frequency of micturition occurring 8–10 times per day. Her gynecological history revealed two full-term normal deliveries, with her last childbirth occurring 40 years ago. She had attained menopause at the age of 39 years. Her surgical history included an appendectomy ten years ago and a total laparoscopic hysterectomy with left salpingectomy two weeks prior to presentation. On assessment, pelvic floor muscle strength was evaluated using the Modified Oxford Grading Scale and was found to be Grade 3/5, indicating a moderate contraction with some lift but insufficient strength to resist external pressure. Symptom severity was further assessed using the Questionnaire for Urinary Incontinence Diagnosis (QUID), with an initial score of 27/36. Based on these findings, a diagnosis of stress urinary incontinence was established.

Therapeutic Intervention

The patient underwent a structured six-week physiotherapy program, administered five days per week. The primary focus was pelvic floor muscle (PFM) strengthening through Kegel's exercises. During the first two weeks, the patient was instructed to perform ten contractions, each held for five seconds followed by five seconds of relaxation, completed in two sets per session. From the third week onward, the protocol was progressed to ten contractions with a ten-second hold and ten-second relaxation period. In addition to PFM training, a series of core muscle strengthening exercises was incorporated to enhance pelvic stability and support. These exercises included posterior pelvic tilt, bent knee fall-outs, glute bridging, curl-ups, knee-to-chest movements, bird-dog exercise, and squatting. Each exercise was performed ten times with a five-second hold. This combined protocol aimed to improve pelvic floor function, core stability, and overall quality of life.

Results

After six weeks of physiotherapy intervention, the patient demonstrated significant improvement in pelvic floor function. Pelvic floor muscle strength increased from Grade 3 to Grade 4 on the Modified Oxford Grading Scale, indicating stronger contraction and improved resistance. Symptom severity, assessed using the QUID questionnaire, decreased from a score of 27/36 at baseline to 12/36 post-intervention. The patient also reported a marked reduction in the frequency of urination and overall improvement in daily functional activities and quality of life.

Discussion

This case highlights the effectiveness of a structured six-week physiotherapy program consisting of progressive pelvic floor muscle training (PFMT) and core stabilization exercises in the management of stress urinary incontinence (SUI) in a postmenopausal woman. The patient's pelvic floor muscle strength improved from Grade 3 to Grade 4 on the Modified Oxford Scale, and her QUID score reduced from 27/36 to 12/36, demonstrating a clinically meaningful reduction in symptoms and improved quality of life. These findings are consistent with evidence from randomized controlled trials and systematic reviews, which support PFMT as the gold standard first-line conservative treatment for women with SUI [3]. Supervised and progressive PFMT protocols have been shown to improve both objective measures of pelvic floor contractility and patient-reported outcomes, with strength gains similar to those observed in this case [4]. Furthermore, incorporating core muscle strengthening into rehabilitation programs has been reported to enhance pelvic stability and optimize functional outcomes, which may have contributed to the broader symptomatic improvement seen in this patient [5]. The QUID questionnaire, used in this case, is a validated and responsive tool for distinguishing between types of urinary incontinence and monitoring therapeutic outcomes [6]. The reduction in score from 27/36 to 12/36 provides objective support for the symptomatic improvements reported by the patient. Overall, this case reinforces current clinical guidelines that recommend conservative physiotherapy as the first-line approach for women with SUI. Short, structured, and progressive exercise programs, including both PFM and core strengthening, can produce measurable benefits within a relatively short period of time, thereby reducing the need for invasive interventions.

Conclusion

This case study demonstrates that a structured physiotherapy program combining pelvic floor muscle training with core strengthening exercises can significantly improve pelvic floor muscle strength, reduce urinary incontinence symptoms, and enhance quality of life in postmenopausal women with stress urinary incontinence. These findings emphasize the role of conservative physiotherapy as an effective first-line management strategy prior to considering surgical or pharmacological interventions.

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