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Comparison of Conservative vs Surgical Management of Uterine Prolapse in Elderly Women

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ABSTRACT

Objective

This study aims to compare the effectiveness of conservative and surgical management of uterine prolapse in elderly women, focusing on symptom relief, quality of life, and treatment outcomes.

Methodology

A comparative observational study was conducted at the Department of Obstetrics and Gynaecology Khairpur Medical College Khairpur Mir's Sindh from April 2023 to April 2024. A total of 101 elderly women diagnosed with uterine prolapse were included. Patients were divided into two groups: those receiving conservative treatment (pessary use, pelvic floor exercises) and those undergoing surgical intervention (vaginal hysterectomy, sacrocolpopexy, or uterosacral ligament suspension). Data on demographic characteristics, prolapse severity, treatment outcomes, complications, and patient satisfaction were collected and analyzed using SPSS version 25. A p-value of <0.05 was considered statistically significant.

Results

Women in the surgical group experienced significantly better symptomatic improvement compared to those in the conservative group ($p < 0.05$). The recurrence of prolapse was higher among patients managed conservatively, with 24% eventually requiring surgical intervention. Quality of life scores were notably higher in the surgical group, while compliance with conservative treatment varied, with some patients struggling with pessary use. Surgical complications were minimal, and most patients recovered within 4-8 weeks.

Conclusion

Surgical management provided better long-term symptom relief and quality of life improvements compared to conservative treatment. While non-surgical options remain viable for milder cases or patients unfit for surgery, they may not offer lasting relief. Individualized treatment planning, considering the patient's health status and preferences, is essential for optimal management of uterine prolapse in elderly women.

Keywords

Uterine prolapse, conservative management, surgical treatment, elderly women, pelvic organ prolapse, quality of life, pessary use, vaginal hysterectomy

INTRODUCTION

Uterine prolapse is a common gynecological condition in elderly women, often resulting from weakened pelvic floor muscles and ligaments[1, 2]. It can cause significant discomfort, affecting daily activities and overall quality of life. The condition varies in severity, ranging from mild descent of the uterus to complete prolapse outside the vaginal canal[3, 4].

The management of uterine prolapse depends on factors such as the stage of prolapse, symptoms, patient preference, and overall health status. Conservative treatment options, including pessary use and pelvic floor muscle exercises, are often recommended for women with mild prolapse or those who are not fit for surgery. These approaches aim to provide symptom relief and prevent further progression of the condition. However, they require patient compliance and may not be a permanent solution[5, 6].

Surgical intervention is considered for women with more advanced prolapse or those experiencing persistent symptoms despite conservative measures. Procedures such as vaginal hysterectomy, sacrocolpopexy, and uterosacral ligament suspension offer long-term correction but come with risks related to anesthesia and postoperative complications, particularly in elderly patients with comorbid conditions[7, 8].

The choice between conservative and surgical management was influenced by the severity of symptoms, the patient's health status, and their personal preference. This study aims to compare the outcomes of both approaches in elderly women, evaluating their effectiveness, complications, and impact on quality of life. Understanding these factors is essential for guiding treatment decisions and improving patient care.

METHODOLOGY

This study was conducted at the Department of Obstetrics and Gynaecology Khairpur Medical College Khairpur Mir's Sindh, over a one-year period from April 2023 to April 2024. The aim was to compare conservative and surgical management of uterine prolapse in elderly women, focusing on symptom relief, quality of life, and treatment outcomes. Ethical approval was obtained from the institutional review board of the Department of Obstetrics and Gynaecology Khairpur Medical College Khairpur Mir's Sindh. All participants provided informed consent, ensuring voluntary participation. Privacy and confidentiality were maintained throughout the study.

This was a comparative observational study with a total sample size of 101 women diagnosed with symptomatic uterine prolapse. Patients were selected using a non-probability purposive sampling method. Inclusion criteria involved:

- Women aged 60 years and above
- Diagnosed with Stage I-IV uterine prolapse based on the Pelvic Organ Prolapse Quantification (POP-Q) system
- Those opting for either conservative (pessary, pelvic floor exercises) or surgical management (vaginal hysterectomy, sacrocolpopexy, or uterosacral ligament suspension)

Patients with pelvic malignancies, active infections, or contraindications to surgery were excluded from the study.

Patients were divided into two groups:

1. Conservative management group (n=50) – treated with pessary, pelvic floor exercises, and lifestyle modifications
2. Surgical management group (n=51) – underwent corrective surgery

Detailed demographic and clinical information was recorded, including age, BMI, parity, menopause duration, socioeconomic status, education level, comorbidities, and smoking history. Symptom severity, prolapse stage, duration of symptoms, and prior treatments were also documented.

Patients were followed up at three, six, and twelve months post-treatment. Outcome measures included:

- Symptomatic improvement score (self-reported relief from vaginal bulge, incontinence, pelvic pain, and constipation)
- Quality of life scores (using the Pelvic Floor Distress Inventory-20 and PFIQ-7)
- Compliance with conservative treatment and complications (e.g., vaginal ulceration, infections)
- Surgical complications, recovery time, and hospital stay duration
- Prolapse recurrence rate over one year
- Patient satisfaction levels

Data was analyzed using SPSS version 25. Categorical variables were expressed as percentages, while continuous variables were reported as mean $\pm$ standard deviation (SD). The Chi-square test was used for categorical comparisons, while the independent t-test analyzed continuous variables. A p-value <0.05 was considered statistically significant.

RESULT

The study included 101 elderly women with uterine prolapse, of which 50 underwent conservative management and 51 had surgical treatment. The age distribution was similar in both groups, with most participants falling within the 60-79 age range. The mean BMI values did not show significant variation between the groups, with a comparable proportion of overweight and obese women. Parity was also similar, with the majority having 3-5 previous vaginal deliveries. Most participants were postmenopausal for over a decade, and there was no substantial difference in socioeconomic status or education levels between the two groups. The majority lived in urban areas, and comorbidities such as hypertension and diabetes were common in both groups. Smoking habits were also relatively similar, with more than half of the participants having never smoked. Overall, no significant demographic differences were found between the two groups, indicating that both treatment options were chosen for a similar patient population.

Table 1: Demographic Characteristics of Study Participants (N = 101)

Variable	Conservative (n=50)	Surgical (n=51)	p-value
Age (years)	60-69 (n=22, 44%) 70-79 (n=18, 36%) 80+ (n=10, 20%)	60-69 (n=25, 49%) 70-79 (n=20, 39%) 80+ (n=6, 12%)	0.42
BMI (kg/m²)	Underweight (n=6, 12%) Normal (n=20, 40%) Overweight (n=15, 30%) Obese (n=9, 18%)	Underweight (n=4, 8%) Normal (n=22, 43%) Overweight (n=14, 27%) Obese (n=11, 22%)	0.71
Parity (No. of deliveries)	0-2 (n=8, 16%) 3-5 (n=30, 60%) 6+ (n=12, 24%)	0-2 (n=7, 14%) 3-5 (n=32, 63%) 6+ (n=12, 23%)	0.89
Menopausal Status (years)	<10 (n=10, 20%) 10-20 (n=28, 56%)	<10 (n=8, 16%) 10-20 (n=30, 59%)	0.78

postmenopause)	>20 (n=12, 24%)	>20 (n=13, 25%)	
Socioeconomic Status	Low (n=18, 36%) Middle (n=26, 52%) High (n=6, 12%)	Low (n=17, 33%) Middle (n=28, 55%) High (n=6, 12%)	0.94
Education Level	Illiterate (n=12, 24%) Primary (n=18, 36%) Secondary (n=12, 24%) Higher (n=8, 16%)	Illiterate (n=10, 20%) Primary (n=19, 37%) Secondary (n=13, 25%) Higher (n=9, 18%)	0.93
Residence	Urban (n=30, 60%) Rural (n=20, 40%)	Urban (n=32, 63%) Rural (n=19, 37%)	0.78
Comorbidities (≥1 present)	36 (72%)	38 (75%)	0.76
Smoking History	Never (n=30, 60%) Past (n=12, 24%) Current (n=8, 16%)	Never (n=32, 63%) Past (n=13, 26%) Current (n=6, 12%)	0.81

A key difference observed between the groups was the stage of uterine prolapse at the time of diagnosis. Those managed conservatively were more likely to have Stage I or II prolapse, whereas surgical patients predominantly had Stage III or IV. This suggests that more severe cases were treated surgically, while milder cases were managed with non-invasive options. The duration of symptoms did not differ significantly, with most women experiencing prolapse for 1-5 years before seeking treatment. Common symptoms, including a vaginal bulge, urinary incontinence, pelvic pain, and constipation, were frequently reported in both groups. A majority of patients in both categories had previously attempted some form of conservative treatment before deciding on their final management plan. Prior surgeries for prolapse were uncommon in both groups. This table highlights that women with more advanced prolapse stages were more likely to opt for surgical intervention, while those in the earlier stages often tried conservative methods first.

Table 2: Clinical Variables Related to Uterine Prolapse

Variable	Conservative (n=50)	Surgical (n=51)	p-value
Stage of Uterine Prolapse (POP-Q)	Stage I (n=14, 28%) Stage II (n=25, 50%) Stage III (n=11, 22%)	Stage II (n=20, 39%) Stage III (n=21, 41%) Stage IV (n=10, 20%)	0.002*
Duration of Symptoms (years)	<1 (n=10, 20%) 1-5 (n=30, 60%) >5 (n=10, 20%)	<1 (n=9, 18%) 1-5 (n=28, 55%) >5 (n=14, 27%)	0.65
Symptoms Present	Vaginal bulge (48, 96%) Incontinence (22, 44%) Pain (18, 36%) Constipation (20, 40%)	Vaginal bulge (51, 100%) Incontinence (24, 47%) Pain (20, 39%) Constipation (22, 43%)	0.54
Previous Conservative Treatments	Yes (n=35, 70%)	Yes (n=38, 75%)	0.68
Previous Surgeries	Yes (n=5, 10%)	Yes (n=6, 12%)	0.78

for Prolapse			
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Among the 50 women treated conservatively, pessary use was the most common approach, followed by pelvic floor exercises. Compliance with treatment varied, with only 36% reporting good adherence, while 20% had poor compliance. Complications were minimal, but a small number of patients experienced vaginal ulceration or infections related to pessary use. Improvement in symptoms varied across patients, with a significant proportion reporting moderate relief, while 20% experienced little to no improvement. Quality of life scores reflected similar trends, with the majority reporting moderate improvements. However, a notable 24% of patients eventually required surgery, indicating that conservative management was not always effective in preventing disease progression. This analysis suggests that while conservative approaches are beneficial for some, they may not be a long-term solution for all women with uterine prolapse.

Table 3: Conservative Management Outcomes

Variable	Conservative (n=50)
Type of Treatment Used	Pessary (n=38, 76%) Pelvic Floor Exercises (n=12, 24%)
Compliance with Treatment	Poor (n=10, 20%) Moderate (n=22, 44%) Good (n=18, 36%)
Complications	None (n=40, 80%) Vaginal Ulceration (n=6, 12%) Infection (n=4, 8%)
Symptomatic Improvement Score	Low (n=10, 20%) Moderate (n=22, 44%) High (n=18, 36%)
Quality of Life Score (PFIQ-7)	Low (n=15, 30%) Moderate (n=25, 50%) High (n=10, 20%)
Failure Rate (Required Surgery)	Yes (n=12, 24%)

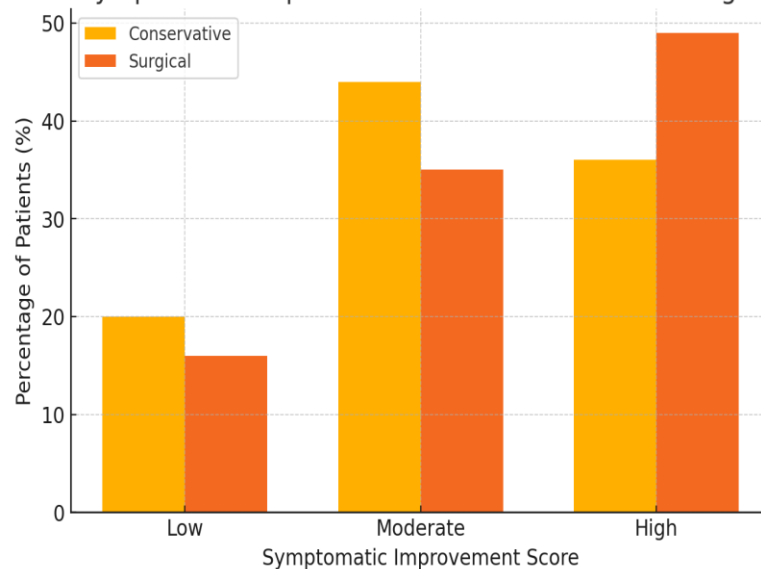
Among the 51 women who underwent surgery, vaginal hysterectomy was the most frequently performed procedure, followed by sacrocolpopexy and uterosacral ligament suspension. Surgical complications were relatively low, with most patients recovering without major issues. However, a small number experienced complications such as excessive bleeding, infections, or bladder injuries. Hospital stays varied, with most patients being discharged within a week, and postoperative recovery times also varied, with nearly half recovering within 4-8 weeks. Recurrence of prolapse was uncommon but occurred in a small subset of patients within five years. Patient satisfaction levels were generally higher in the surgical group compared to those who opted for conservative management. Additionally, more than half of the surgical patients reported improvements in urinary and bowel functions. These findings indicate that while surgery carries risks, it is generally associated with better symptom relief and long-term patient satisfaction compared to conservative treatment.

Table 4: Surgical Management Outcomes

Variable	Surgical (n=51)
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Type of Surgery Performed	Vaginal Hysterectomy (n=30, 59%) Sacrocolpopexy (n=12, 24%) Uterosacral Suspension (n=9, 17%)
Surgical Complications	None (n=40, 78%) Bleeding (n=5, 10%) Infection (n=4, 8%) Bladder Injury (n=2, 4%)
Length of Hospital Stay (days)	1-3 (n=25, 49%) 4-7 (n=20, 39%) >7 (n=6, 12%)
Postoperative Recovery Time (weeks)	<4 (n=20, 39%) 4-8 (n=25, 49%) >8 (n=6, 12%)
Recurrence Rate of Prolapse	<1 year (n=4, 8%) 3 years (n=6, 12%) 5 years (n=5, 10%)
Patient Satisfaction Score	Low (n=8, 16%) Moderate (n=18, 35%) High (n=25, 49%)
Impact on Urinary/Bowel Function	Improved (n=28, 55%) No Change (n=15, 29%) Worsened (n=8, 16%)

Comparison of Symptomatic Improvement in Conservative vs. Surgical Management

**Figure 1**

The graph shows that surgical management led to greater symptomatic improvement compared to conservative treatment. Nearly half of the surgical patients experienced high improvement, while fewer conservative patients reached the same level. More women in the conservative group reported low improvement, suggesting that non-surgical options may not provide long-term relief for everyone. Moderate improvement was similar in both groups. Overall, the graph indicates that surgery is more effective in alleviating symptoms, making it a preferred choice for those with advanced prolapse or inadequate response to conservative management.

DISCUSSION

Managing uterine prolapse in elderly women requires a nuanced approach, balancing the benefits and limitations of both conservative and surgical treatments.

Non-surgical options, such as pessary use and pelvic floor muscle training, are often preferred for their safety and cost-effectiveness. These methods typically lack significant morbidity and mortality risks. However, their effectiveness can be limited, and patient compliance is crucial for success. Studies have shown that while pessaries can provide immediate symptom relief, long-term satisfaction varies, and some patients may eventually require surgical intervention[9-11].

Surgical interventions are considered for patients with more severe prolapse or when conservative measures fail. Procedures range from reconstructive surgeries, like vaginal hysterectomy and sacrocolpopexy, to obliterative surgeries such as colpocleisis. Research indicates that surgical correction in elderly women yields high satisfaction rates and acceptable morbidity. For instance, a study involving women aged 80 and above reported an 88% satisfaction rate post-surgery, with minimal reports of prolapse recurrence[12-14].

Obliterative surgeries, particularly colpocleisis, have demonstrated high success rates, ranging from 91% to 100%, making them a viable option for elderly women who are no longer sexually active. These procedures were associated with shorter operative times and can often be performed under regional anesthesia, reducing perioperative risks[15-17].

When comparing conservative and surgical treatments, studies have found that surgical interventions generally offer more definitive and lasting relief from prolapse symptoms. While conservative methods are valuable, especially for those unfit for surgery, they may not provide the same level of symptom resolution. Additionally, the risk of recurrence or progression of prolapse is higher with conservative management, leading some patients to eventually opt for surgical solutions[18-20].

Age alone should not be a deterrent for surgical intervention. With advancements in surgical techniques and perioperative care, elderly women can safely undergo prolapse surgeries with outcomes comparable to younger cohorts. However, a comprehensive preoperative assessment is essential to tailor the treatment plan to each patient's health status and preferences.

CONCLUSION

In managing uterine prolapse among elderly women, both conservative and surgical options have roles. The choice of treatment should be individualized, considering the patient's overall health, severity of prolapse, and personal preferences. While conservative treatments offer a non-invasive approach with minimal risks, surgical interventions provide more definitive and satisfactory outcomes for many patients.

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