

ABSTRACT

for the dissertation

**by Meirmanova Aliya Onalbayevna on the topic: “A differentiated approach to reconstructive and plastic surgery for genital prolapse and concomitant gynecological pathology in peri- and postmenopausal women”,
submitted for the degree of
Doctor of Philosophy (PhD)
in the specialty 8D10141 — Medicine.**

Scientific Advisors:

Doctor of Medical Sciences, Professor,
Head of the Department of Obstetrics and Gynecology,
Al-Farabi Kazakh National University,
Chief Researcher of the
“Scientific Center of Obstetrics, Gynecology and Perinatology” NJSC
Kurmanova Almagul Medeubayevna

Doctor of Medical Sciences, Professor of the Department of
Obstetrics and Gynecology
with a Course in Clinical Genetics,
Asfendiyarov Kazakh National Medical University NJSC
Omarova Gulzhakhan Kashkinbayevna

Foreign Scientific Advisor:

Doctor of Medical Sciences, Professor,
Head of the Department of Obstetrics and Gynecology No. 1,
Bukhara State Medical Institute named after Abu Ali Ibn Sina (Bukhara, Republic of Uzbekistan)
Ikhtiyarova Gulchekhra Akmalovna

Relevance of the Research Topic

There is a steady trend toward an increasing prevalence of pelvic organ prolapse (POP) in many countries worldwide, associated with longer life expectancy and childbirth, which may become a global health concern [1, 2]. With increasing life expectancy, the number of women seeking medical care, including surgical treatment, has risen significantly [1].

Genital prolapse (descent and prolapse of the pelvic organs) and stress urinary incontinence remain among the most pressing issues in modern gynecology, particularly among women in the perimenopausal and postmenopausal periods. Pelvic organ prolapse (POP) in women is a polyetiological condition that occurs as a result of the descent or prolapse of the pelvic organs due to dystrophy and insufficiency of the uterine ligamentous apparatus and pelvic floor muscles, as well as increased intra-abdominal pressure [2-5].

It is projected that by the year 2050, the number of women suffering from symptomatic pelvic organ prolapse will increase by approximately 50% [3]. According to the MarketScan Commercial Claims and Encounters database (USA), the estimated lifetime risk of undergoing surgical intervention for pelvic organ prolapse (POP) and urinary incontinence (UI) in women aged 80 years is 20.0% [3].

The current female population spends about one-third of their lives in the perimenopausal and postmenopausal periods, and age is one of the most significant risk factors for the development of genital prolapse. However, despite the age-related predisposition, genital prolapse should not be regarded solely as a problem of older women, since up to 37.5% of patients are under the age of 45 [3, 4, 5]. At present, there is a noticeable trend toward younger patients presenting with genital organ prolapse, with the average age not exceeding 50 years, and the proportion of women of reproductive age reaching up to 26%.

In women in the perimenopausal and postmenopausal periods with genital prolapse, concomitant gynecological diseases are often observed and may serve as independent indications for surgical treatment.

Modern gynecological practice increasingly encounters patients who, along with genital prolapse, have multiple gynecological diseases such as genital endometriosis, uterine fibroids, ovarian and fallopian tube neoplasms, adhesive disease, endometrial hyperplastic processes, and cervical pathology. According to the literature, in 18–30% of patients with uterine fibroids, various degrees of concomitant genital prolapse are observed, and in 10–35% of cases with fibroids, urinary incontinence is present. In 45% of cases, genital endometriosis is combined with uterine fibroids.

The possibilities of preoperative examination in patients with genital prolapse are characterized by high diagnostic accuracy, which makes it possible to identify not only the primary pathology but also concomitant gynecological diseases that also require surgical correction. In such cases, the physician deciding on surgical treatment for genital prolapse faces the task of selecting the most rational method of simultaneous surgical intervention in patients who have not one, but several pelvic organ diseases. This requires an individualized approach that takes into account the woman's age, somatic and gynecological status, as well as the use of modern minimally invasive

technologies [7].

Thus, the presence of concomitant gynecological pathology in women with genital prolapse significantly complicates not only the clinical picture but also the planning of the surgical scope, since the combination of genital prolapse with associated gynecological diseases in perimenopausal and postmenopausal patients necessitates a differentiated approach to surgical treatment. This highlights the need for a multidisciplinary approach and comprehensive surgical treatment planning for this category of patients.

Research Objective:

To improve reconstructive and plastic surgery in women with genital prolapse and concomitant pathology of the reproductive organs in the perimenopausal and postmenopausal periods.

Research Objectives:

1. To study the medical, social, and clinical characteristics of patients with genital prolapse and concomitant pathology of the reproductive organs in the perimenopausal and postmenopausal periods.

2. To develop and implement an algorithm for personalized, simultaneous reconstructive and plastic surgery in perimenopausal and postmenopausal women, depending on the type and degree of genital prolapse and the presence of concomitant gynecological pathology.

3. To study the advantages of an individualized approach to simultaneous surgical correction among women with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods (LAVH/VH + pelvic floor reconstruction).

4. To conduct a comparative evaluation of quality of life among women after simultaneous surgical treatment of genital prolapse and concomitant pathology of the reproductive pelvic organs in the perimenopausal and postmenopausal periods.

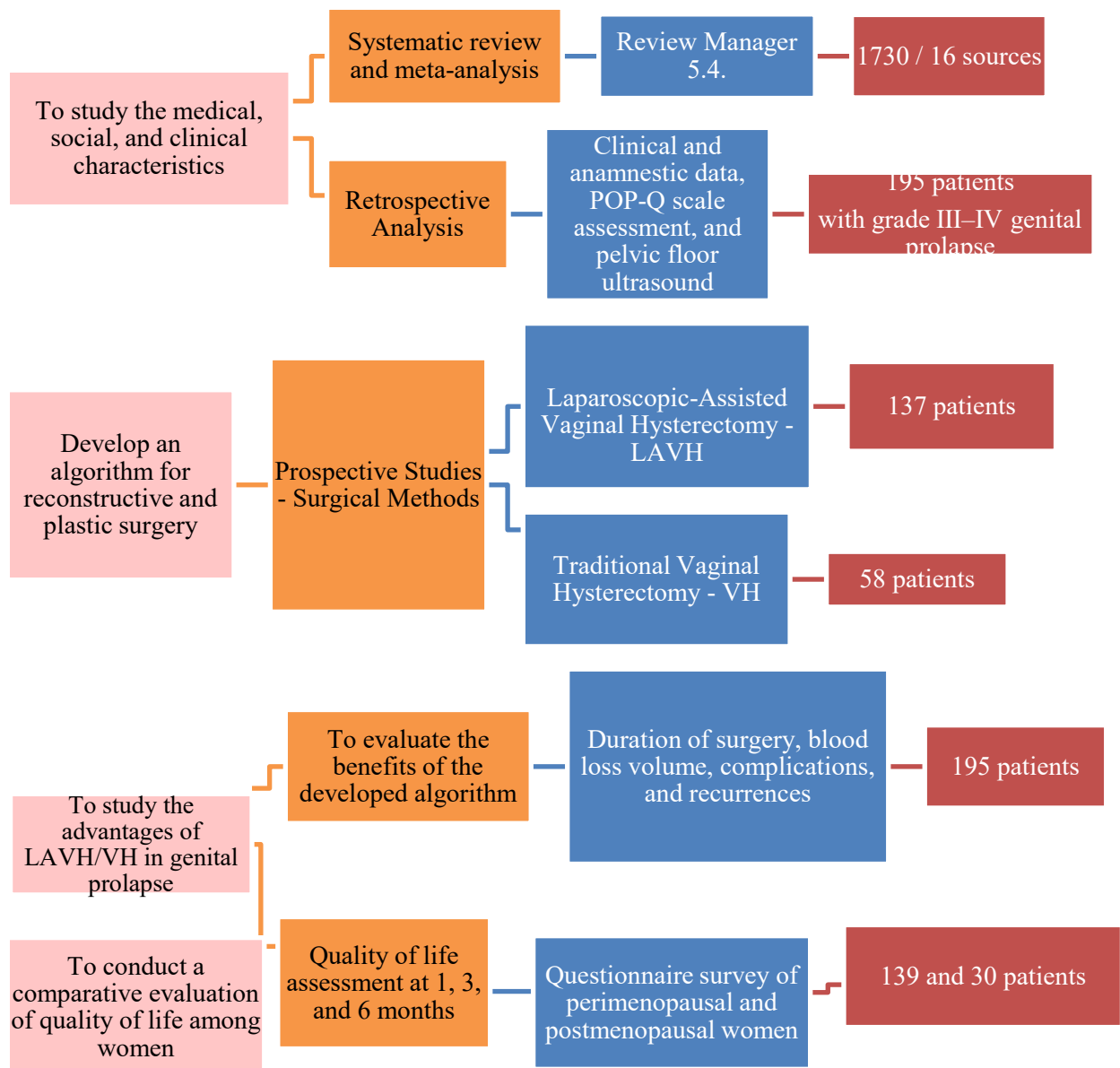
Research Methods: The study was conducted during the period from 2018 to 2022 at the following clinical bases: State Municipal Management Organization on the Right of Economic Management “City Clinical Hospital No. 7”, “Medical Park” JSC, “Central Clinical Hospital” JSC, “Central Clinical Hospital” JSC, Research Center of Obstetrics, Gynecology and Perinatology, Municipal State Enterprise on the Right of Economic Management “City Clinical Hospital No. 1”, Municipal State Enterprise on the Right of Economic Management “City Maternity Hospital No. 1” and Municipal State Enterprise on the Right of Economic Management “City Maternity Hospital No. 5” in Almaty.

Scope of the Study of Patients with GP and UI

Examinations	Total
Clinical	195
Grading of GP severity according to the POP-Q scale	195
Ultrasound examination of pelvic organs	195

Ultrasound examination of the pelvic floor	50
Questionnaire survey using the “Self-Assessment of Quality of Life in Women with Genital Prolapse and Concomitant Gynecological Pathology”	139
Assessment of changes in quality of life and activity level (I-COL, PFDI-20)	60

Study Design.



The medical, social, and clinical characteristics of women with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods were studied. Factors such as patients' age, history of heavy physical labor, high parity, somatic and reproductive history, presence of metabolic and endocrine disorders (particularly obesity), as well as hormonal changes characteristic of the menopausal transition, were analyzed. A high prevalence of concomitant

gynecological pathology was also established, which aggravates the clinical course of the disease.

The examination was performed in the lithotomy position of the patient. In this position, the following were carried out: inspection of the external genital organs, the Valsalva maneuver, and the cough test to assess the functional condition of the pelvic organs and urinary system. Examination of the external genital organs included an assessment of the condition of the labia minora and labia majora, the vestibule of the vagina, the genital fissure, the vaginal walls, the urethra, the posterior commissure, the anal area, and the perineum. The evaluated parameters included the presence of hyperemia, ulcers, fissures, gaping, mucosal prolapse, as well as perineal height, cicatricial deformities, and skin turgor.

The Valsalva maneuver was performed during straining, with documentation of the presence or worsening of prolapse, as well as episodes of involuntary urine leakage. The cough test consisted of consecutive coughing efforts following a full inhalation. Urine leakage during coughing was regarded as a manifestation of stress urinary incontinence.

For an objective quantitative assessment of the degree of pelvic organ descent, the Pelvic Organ Prolapse Quantification (POP-Q) system (ICS, 1996) was used. The examination was performed using Sims' specula: a posterior spoon-shaped speculum and an elevator were used to assess the degree of prolapse of the anterior and posterior vaginal walls. Measurements of parameters were carried out using a centimeter ruler or a uterine sound with a graduated scale.

According to the POP-Q system, six anatomical points (Aa, Ba, C, D, Ap, Bp) and three additional markers (GH, PB, TVL) were determined in relation to the plane of the hymenal ring. The assessment was performed during straining in all 195 patients with pelvic organ prolapse. All patients also underwent ultrasound examination of the pelvic organs, and in 50 women, additional pelvic floor ultrasound was performed to obtain comprehensive visualization of the anatomical structures.

Statistical data analysis was carried out using GraphPad Prism software, version 10 (GraphPad Software Inc.), designed for biomedical research and data analysis. The results were presented as mean values $\pm$ standard deviation (SD) and ranges. The Shapiro-Wilk's test was used to assess the normality of data distribution. For quantitative data analysis, nonparametric methods were applied: the Wilcoxon Matched-Pairs Signed-Ranks test was used to compare medians of two dependent groups in order to identify differences between paired values. To assess differences between groups, both nonparametric and parametric statistical tests were employed. The Mann-Whitney U test, the Pearson's χ^2 test, as well as correlation analysis according to Spearman and Pearson, were applied. Statistical significance of differences was determined at a level of $p < 0.05$.

In accordance with the Declaration of Helsinki, the scientific study was approved by the Local Ethics Committee of the Kazakhstan Medical University "Higher School of Public Health (HSPH)", protocol No. 1 dated September 25, 2019. The study was recognized as ethical and in full compliance with all requirements of medical ethics and patient safety.

Objects of the Study: The study group consisted of 195 women in the

perimenopausal and postmenopausal periods with genital prolapse and concomitant gynecological pathology, who underwent various methods of surgical treatment and pelvic floor reconstruction. Depending on the surgical method used, the patients were divided into two groups: the main group — 137 women who underwent Laparoscopic-Assisted Vaginal Hysterectomy (LAVH), and the comparison group — 58 women who underwent Vaginal Hysterectomy (VH).

Inclusion Criteria: Patients with a confirmed diagnosis of genital prolapse (grades II–IV) according to the POP-Q classification; presence of concomitant benign neoplasms of the internal genital organs (uterine fibroids, ovarian neoplasms, endometrial hyperplastic processes, adenomyosis); age over 45 years; signs of insufficiency of the anatomical and functional structures of the pelvic floor confirmed by ultrasound findings; lower urinary tract dysfunction (stress urinary incontinence) confirmed by comprehensive urodynamic testing; elderly patients with a high surgical risk (arterial hypertension, coronary heart disease, diabetes mellitus, chronic obstructive pulmonary disease in the compensated stage), including anesthesiological risk due to concomitant somatic pathology.

Exclusion Criteria: Patients with acute inflammatory diseases or exacerbations of chronic inflammatory processes in the urological, gynecological, or proctological spheres; patients with acute upper respiratory tract infections; patients with a high surgical risk, including anesthesiological risk, due to concomitant somatic pathology (arterial hypertension, coronary heart disease, diabetes mellitus, chronic obstructive pulmonary disease in the decompensated stage); patients with oncological diseases of the pelvic organs (cancer of the cervix, uterus, ovaries, etc.); patients with severe mental disorders that may affect perception and compliance with treatment and rehabilitation recommendations; patients of juvenile or reproductive age; patients with a confirmed diagnosis of genital prolapse (grade I) according to the POP-Q classification; and those with congenital connective tissue dysplasia.

Subject of the Study: Specific features of simultaneous surgical treatment of genital prolapse among women with concomitant gynecological pathology in the perimenopausal and postmenopausal periods.

Main Provisions Submitted for Defense:

1. Women with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods exhibit certain medical, social, and clinical characteristics: age, employment in physically demanding occupations, high parity, a burdensome obstetric and gynecological history (multiple births, multiple pregnancies, traumatic deliveries), excessive body weight and obesity, long-standing and severe forms of genital prolapse, the presence of stress urinary incontinence, and concomitant chronic diseases such as diabetes mellitus, chronic obstructive pulmonary disease (COPD), and inflammatory diseases of the pelvic organs.
2. The developed algorithm for personalized, simultaneous surgical treatment of patients with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods contributes to improving the effectiveness of reconstructive and plastic pelvic floor surgery, reduces

intraoperative blood loss, minimizes the risk of postoperative complications and recurrences, and decreases the frequency of surgical interventions.

3. The improvement of surgical tactics through personalized, simultaneous performance of LAVH combined with reconstructive and plastic procedures in women with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods contributes not only to the restoration of the anatomical and functional parameters of the pelvic floor but also to the elimination of associated gynecological conditions. This enhances the effectiveness of surgical treatment, reduces the risk of recurrences and long-term complications, and significantly improves patients' quality of life.

Main Research Findings:

On Objective No. 1. Analysis of the medical, social, and clinical characteristics of patients with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods revealed that age is a significant factor influencing the severity of clinical manifestations and the choice of treatment strategy. The largest proportion of patients were aged 60–69 years — 41.0% ($p = 0.307$), followed by those aged 50–59 years — 30.3% ($p = 0.024$). It should be noted that patients over the age of 50 accounted for 85.1% (166). Apparently, this factor — age in the context of menopause — is a determining one in the development of genital prolapse (GP) and urinary incontinence (UI).

High parity (five or more pregnancies) was identified as a significant factor contributing to the development of genital prolapse. In the VH group, it was observed in 79.3% of cases, which is significantly higher than in the LAVH group (48.9%).

A high body mass index ($BMI \geq 30$) was considerably more common among patients in the LAVH group (41.6%) compared to the VH group (22.4%, $p = 0.028$). This is consistent with the literature data: obesity is associated with increased intra-abdominal pressure and, consequently, with more severe forms of prolapse that require laparoscopic correction.

It should be noted that pelvic organ dysfunction was present in 99.5% of patients, urinary disorders in 71.3%, bowel dysfunction in 7.2%, and sexual disorders in 23.6%.

Among reproductive and other risk factors, menopause was identified as a statistically significant factor, occurring more frequently in patients with genital prolapse who underwent vaginal hysterectomy (VH). Other risk factors did not show significant differences between the two groups.

More severe degrees of genital organ prolapse (grades III and IV) predominated in the VH group: 84.5% of patients had grade IV prolapse, which is markedly higher than in the LAVH group (51.1%). In the VH group, 12.1% of patients had grade III prolapse, whereas in the LAVH group this figure was 40.1%. However, the higher frequency of grade IV prolapse in the VH group indicates a tendency toward more severe pelvic organ descent ($p = 0.001$).

Most patients exhibited pronounced deformation and pathological mobility of the pelvic floor structures, which may necessitate further surgical intervention. The most common disorders were puborectalis muscle insufficiency, observed in 31 women (62%), and various forms of cystocele, found in 32 women (64%).

On Objective No. 2. An algorithm for simultaneous, personalized reconstructive and plastic surgery in perimenopausal and postmenopausal women was developed, taking into account the type and degree of genital prolapse and the presence of concomitant gynecological pathology.

Hysterectomy was performed in 100% (195) of patients with genital prolapse, of which 70.3% (137) underwent LAVH with adnexa, and 29.8% (58) underwent VH without adnexa. To prevent possible recurrence of genital prolapse, vaginal vault fixation to the uterosacral ligaments according to Mc-Callow was performed in every second patient, and suburethral plication according to Kelly in every third patient.

Analysis of the surgical interventions revealed that 93.5% of patients with genital prolapse underwent combined reconstructive and plastic pelvic surgeries, which included from 2 to 8 procedures, depending on the stage of prolapse.

On Objective No. 3. Among the 195 patients with genital prolapse (GP) and urinary incontinence (UI), the most common concomitant gynecological diseases were: uterine fibroids — in 117 patients (60%), endometriosis — in 57 patients (29.2%), ovarian neoplasms — in 29 patients (15%), and endometrial hyperplasia — in 16 patients (8.2%). Combined pathologies were identified in 75% of the patients. Among them, the combination of endometriosis and uterine fibroids was found in 98 patients (50.3%), uterine fibroids and ovarian neoplasms — in 23 patients (11.8%), and uterine fibroids and endometrial hyperplasia — in 12 patients (6.2%). Combined pathologies such as endometriosis with fibroids (51.1% in the LAVH group and 48.3% in the VH group, $p = 0.719$), fibroids with ovarian neoplasms (13.1% and 8.7%, respectively, $p = 0.371$), and fibroids with endometrial hyperplasia (6.6% and 5.1%, respectively, $p = 0.694$) also did not show statistically significant differences between the groups. In addition to gynecological pathology, concomitant somatic diseases were also identified in the examined patients with genital prolapse. The most common among them were: chronic arterial hypertension (CAH) in 46.7% of women, overweight and obesity (according to body mass index — BMI) in one out of every four patients, and coronary heart disease (CHD) in 13.3% of the examined women.

Performing LAVH required significantly more time (an average of 2 hours 30 minutes $\pm$ 50 minutes) compared to VH (an average of 1 hour 37 minutes $\pm$ 44 minutes), demonstrating a statistically significant difference in duration between the two groups ($p < 0.001$).

Intraoperative blood loss ranged from 100 to 500 ml, with an average volume of 168 ± 87.6 ml. In the LAVH group, the average blood loss was 127.6 ± 64.3 ml, while in the VH group, it amounted to 185.3 ± 90.7 ml, showing a statistically significant difference between the groups ($p < 0.001$).

The incidence of infectious complications was significantly higher in the VH group (6.89%) compared to the LAVH group (1.46%, $p = 0.044$), which may be related to the characteristics of the surgical approach and tissue handling. Injury to adjacent organs (in one case — the urinary bladder) was observed only in the VH group, but this difference did not reach statistical significance ($p = 0.123$).

Six months after the intervention, anatomical restoration of the pelvic floor was achieved in the majority of patients in both groups: 96.35% after LAVH and 89.66%

after VH, with no statistically significant difference between the groups ($p = 0.064$).

On Objective No. 4. A survey was conducted to assess the quality of life in perimenopausal and postmenopausal women with genital prolapse and concomitant gynecological pathology.

The LAVH group showed a more significant improvement compared to the VH group, with a higher percentage of patients reporting excellent self-assessment after six months — 53.5% vs. 28.9% ($p = 0.001$). In both groups, the proportion of patients with a “good” rating remained high; however, the transition from “good” to “excellent” was more pronounced in the LAVH group.

A total of 195 women participated in the survey before surgery, and 30 women were re-evaluated three months after surgery. Compared to the baseline data, there was a marked reduction in the severity of pelvic symptoms, particularly in the “severe” category, the proportion of which decreased from 70.3% to 0%. This indicates the high effectiveness of the surgical intervention performed.

Patients in the LAVH group were more satisfied with the treatment outcomes (88.1%) compared to those in the VH group (76.3%), indicating the higher effectiveness of LAVH.

Scientific Novelty of the Research Results:

1. The medical, social, and clinical characteristics of women in the perimenopausal and postmenopausal periods with genital prolapse combined with other pelvic reproductive organ pathologies were detailed.

2. An algorithm for simultaneous surgical treatment was developed and implemented, taking into account the type and degree of genital prolapse, concomitant gynecological pathology, and age-related features of women in perimenopause and postmenopause. This approach allows for the elimination of recurrences and reduction of long-term health risks. Registered under “Methodology for the Management of Patients with Genital Prolapse, Stress Urinary Incontinence, and Concomitant Gynecological Pathology” No. 58440 dated May 22, 2025.

3. The advantages of combining laparoscopically assisted vaginal hysterectomy (LAVH) with reconstructive and plastic pelvic floor surgery were studied in comparison with vaginal hysterectomy (VH) in women with genital prolapse and concomitant gynecological pathology during the perimenopausal and postmenopausal periods.

4. In a comparative aspect, the quality of life of women after simultaneous surgical treatment of genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods (LAVH + pelvic floor reconstruction) was evaluated relative to the group of women who underwent VH. The assessment was conducted using the adapted specialized questionnaires developed by the authors: “Adapted Specialized Questionnaire I-COL for Assessing the Impact of Urinary Incontinence on Patients’ Quality of Life” No. 58436 dated May 22, 2025, and “Adapted Questionnaire PFDI for Assessing Pelvic Floor Dysfunction in Women” No. 58359 dated May 21, 2025.

Theoretical Significance:

The study expands and systematizes scientific understanding of the pathogenesis

of genital prolapse in combination with gynecological pathology and stress urinary incontinence in the context of reproductive risk factors. The identified significant predisposing factors leading to the development of pelvic organ prolapse provide a rationale for the necessity of a comprehensive assessment of concomitant gynecological pathology when planning surgical treatment.

The development, testing, and implementation of a simultaneous surgical method for the treatment of genital prolapse and stress urinary incontinence, which takes into account the anatomical and functional characteristics as well as concomitant gynecological pathology, contributes to the formation of a new approach to correcting these disorders. The results of the study can serve as a theoretical foundation for further scientific research in the fields of reconstructive and plastic pelvic surgery, urogynecology, and personalized treatment planning.

Practical Significance:

1. Performing an optimal combination of reconstructive and plastic pelvic floor surgeries with hysterectomy allows for improving patients' quality of life, restoring the function of adjacent organs, eliminating stress urinary incontinence, visualizing foci of genital endometriosis and adhesive disease, and simultaneously removing concomitant gynecological pathology (uterine fibroids, ovarian and fallopian tube neoplasms), while also minimizing the risk of recurrences and repeat surgical interventions.

2. A standardized assessment scale was developed and implemented to determine the type and degree of genital prolapse in women with concomitant gynecological pathology in the perimenopausal and postmenopausal periods, aimed at guiding optimal surgical intervention on the pelvic organs. The use of the developed standardized scale facilitates and improves the accuracy of diagnosing the type and degree of genital prolapse and, accordingly, can be recommended for widespread use in clinical practice by gynecologists and urogynecologists.

3. Recommendations were developed for the use of a simultaneous approach to surgical treatment of genital prolapse in women with concomitant gynecological pathology: the Clinical Protocols "Pelvic Organ Prolapse" (2025) and "Stress Urinary Incontinence in Women" (2025) were reviewed and implemented.

Personal Contribution of the Doctoral Candidate: The author personally defined the research direction and program, and conducted an analytical review of domestic and international literature on the studied problem. A program for the collection and processing of study materials was developed. All LAVH and VH operations were personally performed by the author (with an assistant and a surgeon). Statistical analysis of the data was conducted, results were interpreted and discussed, the provisions submitted for defense were formulated, and conclusions and practical recommendations were made. In addition, the following clinical protocols were reviewed and implemented into practical healthcare: "Pelvic Organ Prolapse" and "Stress Urinary Incontinence in Women" №239, 29.09.2025.

Conclusions

1) Medical, social, and clinical characteristics of women with genital prolapse and concomitant pathology of the pelvic reproductive organs in the perimenopausal and postmenopausal periods: 85.1% of patients were 50 years or older, with a mean age of

58.6 years. 17.4% of patients had occupations involving physically demanding labor. The majority had high parity, with one in three being multiparous, and 30.8% had birth-related injuries. 41.6% of patients had a high body mass index (BMI). 100% of patients experienced long-standing genital prolapse (1–5 years), with every second patient having symptoms for more than 2 years. Two-thirds of patients had chronic somatic diseases, including: Chronic arterial hypertension (CAH) — 46.7%, Metabolic and endocrine disorders (obesity, diabetes mellitus) — 20.51%, Coronary heart disease (CHD) — 13.3%. Among women with genital prolapse in the perimenopausal and postmenopausal periods, there is a high prevalence of concomitant gynecological diseases, sometimes multiple: uterine fibroids — in 60% of patients, genital endometriosis — in 29.2%, ovarian neoplasms — in 15%, and endometrial hyperplastic processes — in 8.2%.

2) Among patients with genital prolapse in the perimenopausal and postmenopausal periods who underwent LAVH, concomitant gynecological pathology was observed more frequently: Uterine fibroids — 63.8% vs. 58.4% in the VH group ($p = 0.482$), Genital endometriosis — 32.9% vs. 20.7% ($p = 0.088$), Ovarian neoplasms — 16.1% vs. 12.1% ($p = 0.679$)

3) The implementation of a personalized strategy for simultaneous surgical treatment of patients with genital prolapse and concomitant gynecological pathology (LAVH with subsequent pelvic floor reconstruction) significantly improved clinical outcomes compared to VH, due to reduced blood loss (64.3 ml vs. 90.7 ml), earlier postoperative rehabilitation (53.5% vs. 28.9% in the VH group), and an optimized combination of procedures: LAVH — 91.4%, LAVH with adnexa — 43.8%, Culdoplasty — 34%, Bladder transposition — 42.1%, Urethral plication and anterior/posterior colpotomy/colporrhaphy — 82.8%, Levator and perineoplasty — 58.1% of patients.

4) Among patients with genital prolapse and concomitant gynecological pathology in the perimenopausal and postmenopausal periods, an individualized approach (LAVH + reconstructive and plastic pelvic surgeries) resulted in a significantly better quality of life at six months compared to the VH group. This was reflected by a higher degree of treatment satisfaction (94.2% vs. 87.9% in the VH group) and a significant reduction in clinical manifestations of pelvic floor dysfunction, from 70.3% to 0%.

Testing and Presentation of Dissertation Results:

The main provisions and findings of the study were repeatedly presented at International and National Scientific-Practical Conferences:

1. “Differentiated Approach to Reconstructive and Plastic Surgery of Genital Prolapse in Women” — V International Scientific-Educational Forum “Ana men Bala”, Almaty, 2022
2. “Stress Urinary Incontinence in Women with Genital Prolapse in the Peri- and Postmenopausal Periods: Treatment Horizons” — II Central Asian Congress of Urologists CACU-23. Interdisciplinary Approach in the Treatment of Urological Diseases, Almaty, 2023
3. “Stress Urinary Incontinence and Genital Prolapse” — XII International Congress of the Kazakhstan Association of Reproductive Medicine (KARM), Almaty,

2024.

4. “Laparoscopic-Assisted Vaginal Hysterectomy in the Comprehensive Treatment of Genital Prolapse in Women with Concomitant Gynecological Pathology: Clinical Experience” — International Scientific-Practical Conference Science and Youth: Conference on the Quality of Medical Care and Health Literacy, Kazakhstan Medical University, Higher School of Public Health, Almaty, 2024.
5. “On the Issue of Rational Treatment of Stress Urinary Incontinence and Genital Prolapse in Women” (Current Issues in Maternity Services in the Republic of Kazakhstan: Problems and Solutions. Republican Scientific-Practical Conference with International Participation, Almaty, 2024.)

Publications

Based on the dissertation, 5 printed works have been published, including 1 article with an impact factor in a journal indexed in Scopus:

1. Electronic Journal of General Medicine. 2023, 20(2), em446 e-ISSN: 2516-3507. Review Article, percentile 78%, CiteScore 3.3 “Surgical Management of Genital Prolapse and Combined Gynecological Pathologies in Women: A Meta-Analysis”.

Additionally, **3 articles** were published in journals recommended by the Committees for Quality Assurance in Science and Higher Education of the Ministry of Science and Higher Education of the Republic of Kazakhstan:

1. Reconstructive and Plastic Surgery of Genital Prolapse in Women in the Perimenopausal and Postmenopausal Periods (Literature Review), VESTNIK KAZNMU, No. 1 (64), 2023 [DOI: 10.53065/p5436-5377-1265-1](https://doi.org/10.53065/p5436-5377-1265-1). ISSN: 2524-0684. e-ISSN: 2524-0692.
2. Individualized Approach in the Surgical Treatment of Genital Prolapse in Women: Comparative Analysis of Methods and Treatment Outcomes. Reproductive Medicine (Central Asia), 2024; 4:122–129. DOI: <https://doi.org/10.37800/RM.4.2024.432>. ISSN: 3078-5057. eISSN: 3078-5065
3. Quality of Life of Parturients with Macrosomia and Stress Urinary Incontinence. Pharmacy of Kazakhstan. No.3(248), 2023. Page.16-22 DOI: [10.53511/PHARMKAZ.2023.24.81.003](https://doi.org/10.53511/PHARMKAZ.2023.24.81.003). ISSN 2310 - 6115

Two articles were published based on the results of scientific work presented at international conferences:

1. Medical and Social Aspects of Patients with Genital Prolapse. Obstetrics, Gynecology and Perinatology. Almaty, - No. 1–2, 2019.
2. Different treatment tactics of the pelvic organ prolapse according to the type and the degree of the prolapse: A narrative review. Vol. 1 No. 1 (2022): Futurity Medicine: March. E-ISSN: 2956-672X
5. Certificates of Entry in the State Register of Rights to Copyrighted Works: (No. 31657, dated January 9, 2023, No. 55226, dated February 26, 2025, No. 58359, dated May 21, 2025, No. 58436, dated May 22, 2025, No. 58440, dated May 22, 2025)

Information on Implementation:

1. “Hybrid Surgery for the Correction of Genital Prolapse and Stress Urinary

- Incontinence in Women” implemented in the practice of the Gynecology Department of the Central City Clinical Hospital (implementation act).
2. “Hybrid Surgery for the Correction of GP and SUI in Women” implemented in the practice of the Gynecology Department of City Maternity Hospital No. 5, Almaty (implementation act).
 3. “Vaginal Extirpation of the Cervical Stump” implemented in the practice of the Gynecology Department of City Maternity Hospital No. 5, Almaty (implementation act).
 4. “Surgery for the Correction of Genital Prolapse and Stress Urinary Incontinence in Women via Vaginal Access” implemented in the practice of the Gynecology Department of City Maternity Hospital No. 1, Almaty (implementation act).
 5. “Hybrid Surgery for the Correction of Genital Prolapse and Stress Urinary Incontinence in Women” was also implemented and adopted at the State Municipal Enterprise on the Right of Economic Management “Regional Perinatal Center of the Ministry of Health”, Turkestan.
 6. Clinical Protocols No. 239 dated September 29, 2025.
 - “Pelvic Organ Prolapse” (revised and implemented)
 - “Stress Urinary Incontinence in Women” (revised and implemented)

Detailed recommendations were developed for the application of a simultaneous surgical approach, allowing optimization of treatment tactics and improvement of outcomes.

Implementation in the Educational Process:

1. G.K. Omarova, A.O. Meirmanova, A.D. Nisanbayev “Multidisciplinary Training Through Teamwork Using the Example: Topographic Anatomy of the Female Genitourinary System, Intraoperative Risks, and Urological Iatrogenic Complications, and Their Prevention” (implementation period: 2020–2022) at the Simulation Center, dated May 21, 2025.
2. G.K. Omarova, Sh.M. Saduakasova, A.O. Meirmanova “Team-Based Learning Using the Example: Safe Obstetrics — Management of Physiological Labor” (implementation period: 2020–2022) at the Simulation Center, dated May 21, 2025.

Volume and Structure of the Dissertation: The dissertation includes normative references, definitions, a list of abbreviations and symbols, as well as three chapters: introduction, literature review, materials and research methods; results of original research; and conclusion, findings, and appendices. The work is presented on 112 pages of typed text, illustrated with 29 tables, 2 figures, and 3 appendices. The reference list consists of 80 sources, including 8 in Russian and 72 in foreign languages.