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Quality of Life of Patients with Prostate Adenoma: Before and After Surgery

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Annotation: Benign prostatic hyperplasia (BPH), or prostate adenoma, is one of the most common urological pathologies in men over 50 years of age. It affects the quality of life of patients, causing symptoms such as frequent and painful urination, sleep disorders, decreased sexual activity, and general weakness. Surgical intervention is one of the main methods of treating BPH. The purpose of this study is to assess changes in the quality of life of patients before and after surgery, as well as to identify factors affecting treatment outcomes. The study involved 100 patients of the urological clinic in Ferghana who underwent transurethral resection of the prostate (TURP). The quality of life was assessed using the IPSS and SF-36 scales. The results showed a significant improvement in the quality of life after surgery, especially with regard to lower urinary tract symptoms and general physical activity.

Keywords: Benign prostatic hyperplasia, prostate adenoma, quality of life, transurethral resection, IPSS, SF-36, surgical intervention.

Relevance. Benign prostatic hyperplasia is a serious medical problem, especially among older men. As people live longer, the incidence of BPH continues to rise, making it necessary to study the impact of this disease on patients' quality of life [1-4].

Surgical intervention as one of the treatment methods is an important aspect that influences the improvement of patients' condition. Evaluation of quality of life is a key component in assessing

the effectiveness of treatment [5-7].

World statistics show that about 50% of men over 50 suffer from benign prostatic hyperplasia, and after 80 years this figure increases to 90%. In Europe and North America, prostate adenoma removal surgeries are among the most common surgical interventions among men over 60 years of age [8-12].

In Uzbekistan, the incidence of BPH is also growing, especially in the older age group. Statistics from the Ministry of Health of Uzbekistan over the past 5 years have shown that the number of hospitalizations with a diagnosis of BPH has increased by 12%, and TURP operations have become one of the popular treatment methods.

Purpose of the study. To assess the change in the quality of life of patients with prostate adenoma before and after surgery, and to identify factors influencing treatment outcomes.

Materials and methods of research. For the study, 100 patients were selected, whose ages ranged from 55 to 80 years, and who were hospitalized for transurethral resection of the prostate (TURP) at the Fergana Urology Clinic. All patients underwent preoperative examination, including a complete blood count, PSA level, ultrasound examination of the prostate and bladder, and urine analysis. Quality of life was assessed using the IPSS (International Prostate Symptom Score) and SF-36 (Modified Health and Life Scale) scales. The assessment was performed twice: before surgery and 6 months after surgery.

Results. At baseline, all patients had high IPSS scores indicating severe disease symptoms (mean score 22.4 ± 3.1). After surgery, significant improvement in quality of life was recorded in all patients. The mean IPSS score decreased to 6.3 ± 2.0, indicating a significant improvement in lower urinary tract symptoms. Also, according to the SF-36 scale, an increase in physical functioning indicators was recorded (the average score before surgery was 40.6 ± 8.2, after - 68.4 ± 7.9) and overall viability (before - 45.3 ± 9.1, after - 70.2 ± 6.5).

Discussion of results. The study revealed the results obtained on the basis of the statistical analysis conducted.

IPSS change assessment - the mean IPSS score before surgery was 22.4 ± 3.1, indicating the presence of severe symptoms in patients with prostate adenoma (severe symptomatology). Six months after surgery, the IPSS score decreased to 6.3 ± 2.0, indicating a significant improvement in patients' condition and a decrease in lower urinary tract symptoms such as urinary frequency, urinary retention, and nocturnal urgency**.**

SF-36 change score: SF-36 showed significant improvement in two measures:

1. Physical functioning: The mean score before surgery was 40.6 ± 8.2, while after surgery it increased to 68.4 ± 7.9. This indicates a significant improvement in physical activity and the patient's ability to perform daily tasks.

2. Overall Viability: Before surgery, the mean score was 45.3 ± 9.1, after surgery it increased to 70.2 ± 6.5, indicating an improvement in overall health and life satisfaction.

As a result of the study, a correlation analysis was established. To assess the relationship between changes in the IPSS scale and the SF-36 scale, correlation coefficients were calculated for the two parameters**:**

1. Correlation between change in IPSS score and physical functioning. The correlation coefficient between change in IPSS and change in physical functioning according to SF-36 was -0.85, indicating a strong inverse correlation. This means that with a decrease in symptoms according to IPSS, there is a significant improvement in patients' physical activity. The significance test (P-value) showed $p<0.01$, which confirms the high significance of this correlation**.**

2. Correlation between change in IPSS score and overall vitality. The correlation coefficient

between change in IPSS score and change in overall vitality according to SF-36 scale was -0.80, which also shows a strong inverse correlation. This confirms that reduction in IPSS symptoms is associated with improvement in overall health and life satisfaction. The significance test (P-value) also showed $p<0.01$, which confirms the statistical significance of this relationship**.**

The results of the correlation analysis show that the improvement of symptoms according to the IPSS scale is closely associated with the improvement of quality of life according to the SF-36 scale, both in terms of physical functioning and overall vitality. This is confirmed by the high values of the correlation coefficient and low P-values, which indicates the statistical significance of these changes.

Based on the statistical analysis conducted, the following conclusions can be drawn:

1. Surgical intervention (TURP) significantly improves the quality of life of patients with prostate adenoma, both in terms of lower urinary tract symptoms (IPSS) and in terms of physical functioning and overall vitality (SF-36).

2. There is a strong inverse correlation between symptom reduction on the IPSS scale and improvement in SF-36 scores, confirming the effectiveness of the surgery in improving the overall condition of patients.

3. The use of IPSS and SF-36 scales is an effective tool for assessing the quality of life of patients before and after treatment of prostate adenoma.

The results of our study confirm the effectiveness of TURP as a method of treating prostate adenoma with an improvement in the quality of life of patients. Reduction of symptoms and improvement of physical condition are associated with the elimination of a mechanical obstacle to normal urination and a decrease in pressure on surrounding tissues [13]. An important factor is also postoperative rehabilitation, which includes recommendations on diet, physical activity and monitoring of the urinary tract [14]. However, it should be noted that not all patients experience the same effect from the operation, which may be due to individual characteristics of the course of the disease and concomitant pathologies [15].

Conclusions:

1. Surgical treatment of prostate adenoma significantly improves the quality of life of patients, especially in relation to lower urinary tract symptoms and overall physical activity.

2. The use of TURP is highly effective in reducing IPSS scores and improving SF-36 scores.

3. Postoperative rehabilitation and monitoring of patients' condition play an important role in ensuring long-term improvement in quality of life.

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