

## 9.2. Streszczenie w języku angielskim -

### SUMMARY

#### Introduction

According to the Polish National Cancer Registry, prostate cancer accounts for approximately 21% of male cancers. Surgical removal of the organ remains the basic form of therapy. Prostatectomy is associated with the risk of periprocedural complications and very significant delayed complications, which are associated with the patient's exposure to somatic and mental strain. It is also worth noting that this burden depends on the treatment method used (surgery and adjuvant therapy vs. isolated surgical treatment), as well as comorbidities and psychological resources (such as e.g. temperament). The most common symptoms reported by patients regarding their physical functioning are: sexual dysfunction and urination problems. The symptoms of psychological disorders are primarily anxiety, depression, and cognitive deterioration. It was also determined that psychological symptoms correspond to the severity and prevalence of somatic disorders in this group of patients. They have a potent influence on their quality of life. Similarly, it has been observed that some laboratory parameters (such as PSA, testosterone levels) may correlate with postoperative outcomes. Clinical observations also show that the patient's ability to accept their health condition and the size of dysfunctions associated with the surgery are not only related to the objective intensification of treatment consequences. It seems that, on the one hand, proper information and preparation of the patient is a very important element that allows to come to terms with postoperative dysfunctions. On the other hand, adaptation to a new, difficult situation results from the psychological structure of the patient. Hence, the recognition of the characteristics of the psychological structure and other factors correlating with postoperative outcomes in this group of patients may be a helpful indicator for ensuring proper pre- and postoperative care, which may contribute to better functioning of patients and better quality of life.

#### Objective of the work

The aim of the study was to analyze the psychological aspects among patients after radical prostatectomy due to cancer and their clinical and biochemical correlates.

## Patients and methodology

The analysis included 118 patients aged 48-77 years (average 65 years) who underwent radical laparoscopic prostatectomy for malignant prostate neoplasm at the Urology Clinic of University Hospital No. 2 in Bydgoszcz in 2017–2019. The patients, after giving informed consent, were subjected to clinical and neuropsychological evaluation.

The clinical evaluation included a detailed medical history, disease advancement, previous treatment, postoperative complications, and comorbidities. We also took blood for laboratory tests (PSA, testosterone, CRP, WBC).

The neuropsychological assessment included evaluation of the profile of affective temperament (assessed with the Polish adaptation of the TEMPS-A questionnaire), cognitive functions (assessed using a Neurotest computer battery), the severity of anxiety and depression symptoms (HADS scale) and quality of life (EORTC QLQ C30 and QLQ-PR25).

An analysis of the severity of anxiety, depression and cognitive symptoms was performed depending on the treatment method used (surgery and adjuvant therapy vs. isolated surgery). We also analyzed the relationship between laboratory parameters and neuropsychological parameters. The assessment of the quality of life of patients after prostatectomy in the context of postoperative consequences and the affective temperament profile complemented the analysis.

## Results

The severity of anxiety and depression symptoms was significantly higher among patients treated with adjuvant therapy compared to the group treated with surgery only. In contrast, cognitive functions were significantly worse in the adjuvant-treated group. Persistently elevated PSA levels after radical prostatectomy and levels of free testosterone after adjuvant hormone treatment independently correlated with the severity of cognitive impairment after treatment. We observed a correlation between the quality of erection after surgery and urinary incontinence and the quality of life. Depressive, cyclothymic, irritable and anxious temperaments were associated with a deterioration in the quality of life after surgery. On the other hand, the multivariate analysis showed that the most important factor influencing the quality of life in the group of patients after radical prostatectomy was the severity of anxiety and depression symptoms assessed by HADS.

## Conclusions

To sum up, the postoperative results after radical prostatectomy depend on many factors - the course of the disease, the treatment method used, the affective temperament profile and laboratory correlates. These contribute to the quality of life of patients. Awareness of such dependencies and proper assessment of the patient characteristic before treatment can help in better care for prostate cancer patients.