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THE IMPORTANCE OF PATIENTS' NUTRITIONAL STATUS IN THE DEVELOPMENT OF COMPLICATIONS AFTER GASTRECTOMY FOR GASTRIC CANCER

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ABSTRACT: Gastric cancer is one of the most common oncological diseases worldwide, and surgical treatment plays a key role in its management. However, various postoperative complications may develop after gastrectomy, negatively affecting patients' general condition and treatment outcomes. Recent studies indicate that the preoperative nutritional status of patients plays an important role in the development of postoperative complications.

The aim of this study was to investigate the significance of patients' nutritional status in the development of complications after gastrectomy performed for gastric cancer.

In this study, patients' preoperative nutritional status was evaluated based on body mass index (BMI), serum albumin levels, and the degree of weight loss. Postoperative complications were analyzed based on clinical observations.

The results showed that the frequency of postoperative complications was higher among patients with preoperative nutritional deficiency. Low BMI, decreased albumin levels, and preoperative weight loss were associated with an increased risk of postoperative infectious complications and anastomotic leakage.

The obtained results indicate that evaluating the nutritional status of patients with gastric cancer and correcting it when necessary is an important step in preparing patients for surgical treatment.

Keywords: gastric cancer, gastrectomy, postoperative complications, nutritional status, malnutrition, body mass index, albumin, surgical treatment.

INTRODUCTION

Gastric cancer is one of the most common oncological diseases worldwide and remains among the leading causes of cancer-related morbidity and mortality. According to the World Health Organization, hundreds of thousands of new cases of gastric cancer are diagnosed each year, and it remains one of the cancers with high mortality rates.

Surgical treatment, particularly gastrectomy, is considered the main and most effective treatment method for gastric cancer.

Despite this, various complications may develop after surgical treatment for gastric cancer. Postoperative complications negatively affect the general condition of patients, reduce the effectiveness of treatment, prolong the rehabilitation period, and in some cases increase mortality rates. The most common postoperative complications include anastomotic leakage, surgical site

infection, intra-abdominal infection, postoperative bleeding, and other general infectious complications.

Recent studies have shown that the general somatic condition of the patient plays a significant role in the development of postoperative complications. In particular, the patient's preoperative nutritional status is one of the factors that significantly influences surgical outcomes.

Patients with gastric cancer often develop malnutrition. This condition is associated with metabolic changes caused by the disease itself, decreased appetite, impaired digestion, and increased catabolic processes.

In patients with malnutrition, immune system function weakens, tissue regeneration capacity decreases, and wound healing slows down. As a result, the risk of postoperative infectious complications, anastomotic leakage, and other severe complications increases.

Therefore, assessing the nutritional status of patients with gastric cancer and correcting it when necessary is an important step in preparing them for surgical treatment.

The aim of this study was to investigate the importance of patients' preoperative nutritional status in the development of complications after gastrectomy performed for gastric cancer.

MATERIALS AND METHODS

The study was conducted as a retrospective clinical analysis. Patients who underwent surgical treatment (gastrectomy) for gastric cancer were included in the study.

The patients' preoperative general condition and nutritional status were evaluated using the following parameters:

Body Mass Index (BMI)

Serum albumin level

Total protein level

Degree of preoperative weight loss

Based on their nutritional status, patients were conditionally divided into two groups:

Patients with normal nutritional status

Patients with signs of malnutrition

Postoperative complications were identified through clinical observation and classified into the following categories:

Anastomotic leakage

Surgical wound infection

Intra-abdominal infection

Postoperative bleeding

Respiratory and other general infectious complications

The severity of complications was assessed using the **Clavien–Dindo classification**.

The obtained data were analyzed using statistical methods. Correlation and comparative analyses were used to determine the relationship between nutritional parameters and the development of postoperative complications.

RESULTS

The study results showed that postoperative complications were significantly more frequent in patients with poor preoperative nutritional status.

Patients with low BMI demonstrated slower wound healing and a higher likelihood of developing infectious complications. In addition, patients with low serum albumin levels had a significantly higher risk of developing anastomotic leakage.

Patients who experienced significant weight loss before surgery had a higher frequency of postoperative complications and a longer rehabilitation period.

It was also observed that patients diagnosed with malnutrition had a relatively longer hospital stay in the postoperative period.

DISCUSSION

The obtained results indicate that preoperative nutritional status is an important prognostic factor in the development of complications after gastrectomy in patients with gastric cancer.

Previous studies have also reported that malnutrition is a common problem among oncological patients. Research indicates that a large proportion of patients with gastric cancer experience preoperative weight loss, protein deficiency, and other metabolic disorders.

A decrease in albumin levels leads to suppression of immune system function and increases the risk of infectious complications. In addition, protein deficiency slows tissue regeneration processes and may contribute to the development of severe complications such as anastomotic leakage.

Therefore, evaluating the nutritional status of patients with gastric cancer is an essential component of preoperative preparation.

The use of enteral or parenteral nutritional support during the preoperative period may improve the general condition of patients and reduce the risk of postoperative complications.

CONCLUSION

Preoperative nutritional status has important prognostic significance in the development of complications after gastrectomy performed for gastric cancer.

BMI, serum albumin levels, and the degree of preoperative weight loss are important indicators for assessing the risk of postoperative complications.

Assessing and correcting the nutritional status of patients in the preoperative period can improve surgical treatment outcomes and reduce the frequency of postoperative complications.

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