

7. Streszczenie w języku angielskim

Introduction

The incidence of obesity is steadily increasing and has already reached the proportions of a global pandemic. The proven relationship of obesity with the etiology, pathogenesis and epidemiology of cardiovascular diseases, and the fact that they are the most common cause of morbidity and mortality in the global population, justifies the statement that the search for effective methods of treating obesity and metabolic syndrome, not only to reduce the obesity epidemic, but also as a prophylaxis and the first stage of therapy for the most common fatal diseases, should be one of the priority directions in the development of modern medicine.

Often the problem of overweight and obesity begins in childhood and is a precursor to further health conditions. What is more, it significantly increases the risk of many chronic diseases. The risk of comorbidities increases with age. In subjects over 50 years old with obesity, a higher risk of comorbidities (hyperlipemia, hypertension, type 2 diabetes, metabolic syndrome and others) may be observed, which is associated with the need to use appropriate pharmacological treatment and change the current lifestyle. Significant proportion of obese subjects in the general population and insufficient effect of conservative treatment led to the development of bariatric surgery.

Among all bariatric procedures, laparoscopic sleeve gastrectomy (LSG) is considered to be one of the most effective method for long-term weight loss and

improvement or remission of obesity-related diseases such as hypertension, type 2 diabetes, metabolic syndrome and hypercholesterolemia.

Objective

The aim of the presented doctoral thesis was to evaluate the influence of sleeve gastrectomy on metabolic syndrome and coexisting diseases in patients over 50 years old treated surgically due to morbid obesity and to determine the effectiveness of LSG in the treatment of hypertension, type 2 diabetes, metabolic syndrome, hypercholesterolemia and other diseases in patients with morbid obesity.

Material and methods

The study was conducted between 2013 and 2018. Sleeve gastrectomy was performed in patients undergoing bariatric treatment. The study group consisted of patients qualified for bariatric treatment in accordance with the European Guidelines on Metabolic and Bariatric Surgery and SCMiB - TCHP. Patients were excluded from the study when perioperative complications occurred or due to lack of cooperation during follow-up. Selected biochemical, clinical and anthropometric parameters were assessed at the Surgical Outpatient Clinic on designated dates, 1-3-6-12 months after the surgery.

The effect of treatment of the most common diseases coexisting with obesity was assessed after bariatric surgery. Improvement was considered to be a reduction in the doses of medications taken, an improvement in blood pressure

parameters – examined by the patient before the follow-up visit – and an improvement in the results of biochemical tests. Remission was considered to be complete discontinuation of drugs intake, normalization of blood pressure parameters from the last outpatient visit and the results of biochemical tests within the normal range compared to the previous visit at the Surgical Outpatient Clinic.

Results

Obesity as a social disease is currently one of the major public health problems in the world due to its health and economic effects, extent and rapid escalation. This problem affects every age group, regardless of race or gender. A significant proportion of obese people in the general population and the insufficient effect of conservative treatment led to the development of bariatric-metabolic surgery.

Sleeve gastrectomy is the leading method in metabolic surgery and it is increasingly popular with bariatric surgeons. LSG is an effective method that allows to achieve significant weight loss in a short time. In addition, it reduces the risk of cardiovascular and cancer diseases, and also leads to the improvement or remission of diseases coexisting with obesity, including type 2 diabetes, non-alcoholic fatty liver, metabolic syndrome, cardiovascular diseases, obstructive sleep apnea, ovarian disorders, urinary incontinence and other.

Analyzed literature data confirm the beneficial effect of sleeve gastrectomy in the treatment of obesity-related diseases. Improvement in clinical parameters

was found, including a reduction in blood pressure in patients with diagnosed arterial hypertension, improvement in biochemical tests, including lipid and carbohydrate metabolism parameters, and a decrease in BMI. Improvement or remission of comorbidities has positive effect on the quality of life of patients, significantly reduces the risk of premature death from cardiovascular diseases and extends healthy life.

Conclusions

Obesity has reached the proportions of a 21st century global pandemic that affects people of all ages, races, and continents. Obesity is one of the leading components associated with an increased risk of chronic diseases, including: metabolic syndrome, hypertension, dyslipidemia, type 2 diabetes, cardiovascular disease and other diseases in middle-aged and elderly people. It increases the risk of cancer and premature death. Obesity often begins in childhood and continues to adulthood, where weight loss is extremely difficult.

BMI gradually increases in the third and fourth decades of life, peaking in the sixth decade, after which it tends to decrease. Significant percentage of obese patients in the general population and an insufficient effect of conservative treatment led to the development of bariatric-metabolic surgery. LSG is a leading procedure in bariatric-metabolic surgery and an effective method of treating obesity, especially in patients over 50 years old with comorbidities that lead to constant weight loss, improvement or remission of chronic diseases.

