

Mgr Małgorzata Kaszuba

**Wpływ zmian nawyków żywieniowych po operacjach  
bariatrycznych na wybrane wartości parametrów  
laboratoryjnych**

The impact of dietary habit changes after bariatric surgery on  
selected laboratory parameters

**Rozprawa doktorska na stopień doktora  
w dziedzinie nauk medycznych i nauk o zdrowiu  
w dyscyplinie nauki o zdrowiu  
przedkładana Radzie Dyscypliny Nauk o Zdrowiu  
Warszawskiego Uniwersytetu Medycznego**

Promotor: dr hab. n. med. i n. o zdr. Anna Różańska-Wałędziak, prof. uczelni

Promotor pomocniczy: dr hab. n. med. i n. o zdr. Maciej Wałędziak

Obrona rozprawy doktorskiej przed Radą Dyscypliny Nauk o Zdrowiu Warszawskiego  
Uniwersytetu Medycznego

Warszawa, 2024r.

**Introduction:** In the last few decades obesity has become one of the most important civilization diseases. According to the World Health Organization, more than 1.9 billion people worldwide are overweight and 650 million are obese. There are numerous factors contributing to the obesity pandemic, including genetic, metabolic, psychological, environmental and lifestyle. Obesity is associated with higher risk of comorbidities, dyslipidemia, insulin resistance, diabetes mellitus type 2, cardiovascular disease, hypertension or obstructive sleep apnea. Obesity can lead to anxiety and depression disorders, which may result in social isolation. Obesity and its' comorbidities create high cost for healthcare systems and increase the mortality rate.

**Aim of the study:** The purpose of the study was to analyze the possible influence of changes in dietary habits after bariatric surgery on the laboratory results reflecting the metabolic status.

**Material and method:** The study group included patients after laparoscopic sleeve gastrectomy or laparoscopic Roux-en-Y gastric bypass. Selected parameters in laboratory tests were analyzed in the whole group and accordingly depending on the type of bariatric procedure.

**Results:** Bariatric procedures result in positive changes in laboratory tests simultaneously with reduction of body weight. These changes were found to remain in correlation with changes in dietary habits after surgery for obesity, differing depending on the of procedure. Amelioration in the lipid levels results was found to be more distinctive in women than in men, which may result from different metabolic activity between the sexes or heterogenous dietary behavior. Additionally, patients after bariatric surgery had a tendency to choose healthy food products instead of unhealthy ones.

**Conclusions:** The results of the study indicate the necessity of individual care for patients after bariatric surgery and emphasize the importance of creating healthy dietary habits. Nutritional, vitamin and micronutrients deficiencies should be carefully monitored and adequate supplementation introduced. Appropriate diet is one of the

most important factors that influence optimum result of the bariatric surgery and reduction of the complication rate.