Health Prob Civil. 2025, Volume 19, Issue 2
ISSN 2353-6942, eISSN 2354-0265

BARIATRIC SURGERY: A MODERN METHOD REDUCING THE RISK OF CANCER DEVELOPMENT

Aneta Jerzak[1(A,B,C,D,E,F)], **Katarzyna Jakubowska**[1(A,B,C,D,E,F)], **Aleksandra Janocha**[2(A,B,C,D,E,F)], **Paweł Ziemba**[2(A,B,C,D,E,F)]

[1]Ludwik Rydygier Specialist Hospital in Kraków, Poland
[2]Independent Public Healthcare Center number 1 in Rzeszów, Poland

Authors' contribution:
A. Study design/planning
B. Data collection/entry
C. Data analysis/statistics
D. Data interpretation
E. Preparation of manuscript
F. Literature analysis/search
G. Funds collection

Dear Editor,

Recently, we have encountered a fascinating article written by Davey et al. [1] that investigated the potential colorectal cancer prevention effects of bariatric surgery. We consider this topic to be extremely important to both individuals with obesity and doctors, because more frequent qualifications for bariatric surgery will not only contribute to weight loss but also reduce the risk of cancer development.

Obesity is a chronic, recurrent and progressive disease. It is estimated that the global incidence of obesity has tripled since 1975, and more than two-thirds of the U.S. population is overweight [2].

The association between obesity and oncologic risk has been described for many years, although poorly confirmed in molecular interactions. Unhealthy lifestyle, low physical activity, reduced dietary fiber intake, and food processing are known to be major independent risk factors for both obesity and cancer development. Obesity with related comorbidities are responsible for at least 40% of all the newly diagnosed cancers (as colon, uterine, breast, pancreatic, and esophageal cancer) [3].

Bariatric surgery leads to sustained weight loss with appropriate preoperative care, low-calorie diet and lifelong follow-up. Indications for bariatric surgery after the exhaustion of conservative treatment modalities are BMI ≥ 40 kg/m^2 or BMI ≥ 35kg/m^2 with the obesity-associated comorbidities. The most popular bariatric surgeries include sleeve gastrectomy and Roux-en-Y gastric bypass [4].

In the meta-analysis conducted by Davey et al. [1], it was confirmed that bariatric surgery significantly protects against the occurrence of colorectal

Tables: 0
Figures: 0
References: 4
Submitted: 2024 May 17
Accepted: 2024 May 21
Published Online: 2024 May 23

Keywords: bariatric surgery, gastrointestinal surgery, colorectal cancer, obesity, cancers

Jerzak A, Jakubowska K, Janocha A, Ziemba P. Bariatric surgery: a modern method reducing the risk of cancer development. Health Prob Civil. 2025; 19(2): 120-121. https://doi.org/10.5114/hpc.2024.139825

Address for correspondence: Aneta Jerzak, Ludwik Rydygier Specialist Hospital in Kraków, os. Złotej Jesieni 1, 31-826 Kraków, Poland, e-mail: aneta.jerzak1@gmail.com, phone: +48 518655640

ORCID: Aneta Jerzak https://orcid.org/0009-0004-4658-2146, Katarzyna Jakubowska https://orcid.org/0009-0003-4719-5802, Aleksandra Janocha https://orcid.org/0000-0002-1350-991X, Paweł Ziemba https://orcid.org/0000-0003-0459-0100

cancer in individuals with obesity. During five years of follow-up, colorectal cancer developed in 0.6% of the patients undergoing bariatric surgery and in 1.0% of the obese patients not undergoing the surgery [1]. Additionally, the authors of the study did not find any difference when comparing Roux-en-Y gastric bypass and sleeve gastrectomy [1].

These findings illustrate the benefits of bariatric surgery including not only the visual, psychological, and social aspects for the patient related to weight loss, but also reducing the risk of high-mortality cancers. Furthermore, the results underscore the need for further education of healthcare professionals working with individuals with obesity to remember about the wide range of treatment options, including lifestyle changes and pharmacotherapy as well as bariatric surgery. Bariatric surgery offers the greatest weight loss potential, with an average weight loss of 25%, providing a significant reduction in the overall risk of developing cancer after interventional surgery.

References:

1. Davey MG, Ryan OK, Ryan ÉJ, Donlon NE, Reynolds IS, Fearon NM, et al. The impact of bariatric surgery on the incidence of colorectal cancer in patients with obesity-a systematic review and meta-analysis of registry data. Obes Surg. 2023; 33(8): 2293-2302. https://doi.org/10.1007/s11695-023-06674-4
2. Kloock S, Ziegler CG, Dischinger U. Obesity and its comorbidities, current treatment options and future perspectives: challenging bariatric surgery?. Pharmacol Ther. 2023; 251: 108549. https://doi.org/10.1016/j.pharmthera.2023.108549
3. Lunger F, Aeschbacher P, Nett PC, Peros G. The impact of bariatric and metabolic surgery on cancer development. Front Surg. 2022; 9: 918272. https://doi.org/10.3389/fsurg.2022.918272
4. Fink J, Seifert G, Blüher M, Fichtner-Feigl S, Marjanovic G. Obesity surgery. Dtsch Arztebl Int. 2022; 119(5): 70-80. https://doi.org/10.3238/arztebl.m2021.0359