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“High BMI is Associated with Decreased Access to Oncologic Surgical Care: Analysis of the NSQIP (2005-2022)”

INTRODUCTION: Individuals with a high body mass index (BMI) represent the most rapidly expanding demographic in the United States and face increased cancer risk and worse survival. Although obesity is linked with many malignancies, we proposed that patients with extremely elevated BMI may be underrepresented among both general and cancer-specific surgical cases. To evaluate this, we used data from the National Surgical Quality Improvement Program (NSQIP) to examine whether patients with BMI ≥ 60 or ≥ 70 undergo proportionally fewer surgical procedures.

METHODS: We analyzed all NSQIP cases from 2005–2022 ($n = 11,634,075$). Both common surgical operations and procedures performed with oncologic intent were compared between patients with BMI ≥ 60 or ≥ 70 and the overall NSQIP cohort. Paired t-tests were performed to assess proportional differences in procedure rates. The primary outcomes were the frequency of cancer-related operations. All statistical analyses were conducted using R version 4.4.1.

RESULTS: Among 2,055,241 oncologic cases, patients with BMI ≥ 60 received 38.6% fewer cancer-directed procedures. Across the full dataset, patients with BMI ≥ 70 underwent 64.2% fewer operations commonly performed for cancer treatment. The decline was consistent across multiple cancer types, including breast, pancreas, colon, prostate, and bladder.

CONCLUSIONS: In this nationwide sample, patients with extreme BMI underwent substantially fewer surgeries typically performed for oncologic purposes compared with the broader population. Further work is needed to validate these findings with cancer registry data, which often do not capture BMI. Addressing these gaps and ensuring surgical access for high-BMI patients is essential to improving equity in cancer care.