



The Function of Preoperative Toxicological Testing In Bariatric Surgery Patients

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Abstract

A major hospital system that serves a broad patient population was the site of this investigation. A record review and institutional Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program [13] data were used to collect data from three healthcare institutions. Given the use of de-identified data, our institution's Institutional Review Board determined that this study was exempt.

Keywords: Toxicology, bariatric surgery, metabolism

Introduction

Despite the fact that there is no proof that toxicological screening has an impact on postoperative outcomes, some programmes and insurers may nonetheless mandate testing for patients. To comprehend the frequency of screening positively on toxicological tests in the population undergoing bariatric surgery and to investigate the relationship between testing positively and significant surgical results [1].

Methods

An academic health system's patients who underwent laparoscopic sleeve gastrectomy or Roux-en-Y gastric bypass between 2017 and 2020 were reviewed retrospectively. We discussed the prevalence of serum and urine testing-based preoperative toxicological positive. Through the use of chi-square and t-test analysis, we looked at the relationships between toxicology positivity and preoperative length, 30-day complications (bleeding, venous thromboembolism, leak, wound infection, pneumonia, urinary tract infection, and myocardial infarction), readmissions, and 1-year weight loss [2, 3].

134 patients (12.7%) out of 1057 patients obtained positive toxicological results. Of these, 21 (16%) and 37 (28%) tested positive for cotinine and opiates, respectively. For patients with positive testing, the mean preoperative time was 381.8 days (SD, 222.5), compared to 287.8 days (SD, 151.5); $P = 1.00$ for negative testing. Readmissions were not correlated with toxicology positive (5.2% versus 4.3%, $X^2 = 0.22$; $P = .64$). At one year, the loss to follow-up was 32.5%. There was no correlation between the mean 1-year change in body mass index (12.23 kg/m² [SD, 5.61]) and the mean 1-year change in body mass index (12.74 kg/m² [SD, 6.44]; $P = .20$).

1057 individuals who underwent primary, laparoscopic bariatric surgery between 2017 and 2020 made up our cohort. Table 1 displays the baseline traits. The average age of our entire cohort was 43.3. (Standard deviation [SD], 11.9). With 51.5% of patients self-identifying as White, 27.5% as Black, 0.3% as Asian, 20.7% as unknown or not stated race, and 26.6% as Hispanic ethnicity, patients were racially and ethnically diverse [4,5,6,7].

Discussion

The prevalence of positive toxicological results among patients undergoing bariatric surgery at a major healthcare system is described in our study for the first time in an observational study. We discovered that the crucial outcomes of preoperative duration, readmission rates,

and postoperative weight loss were unaffected by obtaining a good toxicological result. Our study included limitations that prevented us from drawing a firm conclusion about this result, even though we did not detect a substantial impact on the incidence of complications [8, 9].

Conclusion

In order to better understand the prevalence of toxicological positive in patients undergoing bariatric surgery, this study examined data from a significant healthcare system. We discovered that significant patient outcomes were unaffected by a positive test result. Preoperative toxicological testing is still crucial because it can help to identify individuals who may require extra assistance in cutting off drug use that could raise their risk of future difficulties. But this is true of all medical tests. [10].

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Conflict of Interest Statement

The authors affirm that they have no known financial or interpersonal conflicts that would have appeared to have an impact on the research presented in this study.

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