Resuming Bariatric Surgery Procedures During COVID-19 Pandemic: Early Surgical Outcomes

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Background

- In response to the COVID-19 pandemic, most elective surgical procedures were **delayed or cancelled.**
- Even with the implementation of surgical societies' recommendations, patient safety was a concern, however, data reported in the bariatric **field remains limited**.
- This study aimed to evaluate the postoperative outcomes in patients undergoing bariatric surgery after reopening elective surgery during the first COVID-19 peak (May-June 2020) in an Asian country.

Methods

- All patients who underwent primary and revisional bariatric surgery from September 2015 to July 2020 were included.
- Patients were divided into two cohorts: **The pre-COVID-19 cohort** (PC): September 15, 2015 to March 11, 2020. **The re-opening cohort** (RO): (June 1, 2020 to July 31, 2020).
- **Propensity score weighting** was used to evaluate postoperative outcomes.
- **Precautionary measures for surgery:** use of facemask, asymptomatic, age below 60 years, no previous history of COVID-19 and negative test prior to surgery.

Results

- Our study included **1,076 patients;** 1,015 patients were in the PC and 61 patients in the RO.
- **In the PC** (74.9%) cases were primary and (25.1%) were revisions. **In the RO** (72.1%) cases were primary and (27.9%) were revisions.
- Both groups had **similar comorbidities** profiles.

Table 1: Baseline Characteristics

Variables	Pre-COVID	Reopening	*P-Value*
Age [range, years]	37 [16-71]	35 [19-61]	.178
Male	368 (36.2%)	20 (32.8%)	.5823
Female	647 (63.7%)	41 (67.2%)	.5823
BMI (mean ± SD)	42 ± 8.2	42 ± 7.2	1
ASA (median: IQR)	3 (2)	3 (2)	1

***Abbreviations: ASA,** American Society of Anesthesiologists; **BMI,** body mass index; **IQR,** interquartile range; **SD,** standard deviation.*

Table 2: Comparison of intra-operative outcomes

		Unweighted/Unmatched		Weighted/Matched	
	Reopening	Pre-COVID	*P-Value*	Pre-COVID	*P-Value*
Blood loss >100 ml	0%	0.39%	.995	0.27%	.999
Intraop complication	0%	0.80%	.991	0.40%	.998
Proc. Duration (minutes)	145.05	141.995	.712	136.62	.019

***Abbreviations: ML,** milliliter; **Proc,** procedures.*

Results

- There were no statistically significant differences in the **30 day peri-operative** outcomes including;
  - ✓ Emergency department visits 24.8% PC vs 19.7% RO, **(*p*=0.492)**
  - ✓ Re-admission 4.2% PC vs 8.2% RO, **(*p*=0.361)**
  - ✓ Reoperation 2.6% PC vs 0 % RO, **(*p*=0.996)**
  - ✓ Major complications 4.0% PC vs 4.9% RO, **(*p*=0.812)**
  - ✓ Death 0% PC vs 0% RO, **(*p=1*)**
- **No patients contracted COVID-19**, had pulmonary complications or admitted to the intensive care unit during the post-operative period.

Conclusions

- With the appropriate policies and precautionary measures, it appeared to be **safe** to reopen electives procedures.
- Bariatric surgery may be carried out in **selected groups** of COVID-19 negative patients with strict perioperative care.
- The ability to replicate **similar outcomes** in other countries will depend on local prevalence rate, available vital hospital resources and strict measures.

Disclosures

- Authors have no conflicts of interest relevant to this publication.