

Open versus Laparoscopic Gastric Bypass Surgery: Analysis Of Select Recovery Parameters

E. Ohayon, MD; J.G. Brock-Utne, MD; H.J.M Lemmens, MD, PhD; J.B. Brodsky, MD; M. Vierra, MD.

Department of Anesthesia, Stanford University School of Medicine, Stanford, California

Introduction: Gastric bypass surgery for morbid obesity can be performed by either open laparotomy or by laparoscopy. We compared select recovery parameters to determine whether one technique offers any advantage.

Methods: Twenty-seven patients undergoing gastric bypass operations between October 1998 and March 1999 were studied. Group I (n=13) had open surgery and Group II (n=14) had endoscopic surgery. Patient demographics (age, weight, body mass index (BMI)), and time in the operating room were compared. We also compared duration of stay in the recovery room, time to tolerance of clear liquids, and total length of hospitalization. Data analysis was performed by two-sample two-tailed T-test. A $P \leq 0.05$ was considered statistically significant.

Results: Results are shown as mean (\pm SD). There were no significant differences in age, weight, BMI between the two groups (Table 1). Time in the operating room was significantly longer for Group II patients but length of recovery room stay was not significantly different between the groups. Time to tolerance of clear liquids and total length of hospital stay were both significantly shorter for Group II patients (Table 2).

TABLE 1

Variable	laparoscopic mean (SD)	open mean (SD)	P value
Weight(kg)	136.2 (21.2)	158 (42.4)	0.1001
Body Mass Index	51.0 (11.7)	57.2 (13.7)	0.2139
Age (yr)	46.6 (6.3)	47.2 (10.3)	0.8582

TABLE 2

Variable	laparoscopic mean (SD)	open mean (SD)	P value
Time in operating room (min)	332 (54)	262 (40)	0.0009
Time in recovery room (min)	124 (45)	174 (91)	0.0816
Time to clear liquid intake (days)	1.7 (1.4)	3.0 (0.8)	0.0171
Hospital stay (days)	4.5 (1.7)	6.8 (1.6)	0.0013

Conclusion: Laparoscopic gastric bypass surgery is associated with a more rapid recovery of bowel function (shorter time to tolerance to clear liquids) and more rapid overall recovery (shorter hospitalization) compared to the same surgery performed via laparotomy. We believe these differences are important for both patient convalescence and for reducing overall hospital cost.