



EFFICACY AND SAFETY OF LAPAROSCOPIC SLEEVE GASTRECTOMY IN ELDERLY PEOPLE OVER 65 YEARS

Reda Fawzy Ali, Ragab Seddik, Mohamed Elemawy, Ahmed Gheda, Mohamed Rizk Bishr, Ahmed Sedky Eltaie, Mohamed Mostafa Omar

General Surgery Department, Faculty of Medicine, Kafrelsheikh University, Egypt

BACKGROUND & AIM

Clinical Challenge

- Obesity in elderly patients (≥ 65 years) represents a major health crisis with disproportionate comorbidity burden and reduced life expectancy. Bariatric surgery was historically contraindicated in patients over 50 due to concerns about morbidity and mortality. Recent guidelines from IFSO and ASMBS support metabolic and bariatric surgery in elderly patients, but prospective evidence specifically in the ≥ 65 age group remains limited.

Study Aim

- To assess the safety and efficacy of laparoscopic sleeve gastrectomy (LSG) in patients aged 65 years and older, evaluating weight loss outcomes and comorbidity resolution over 12 months.

Hypothesis

- Laparoscopic sleeve gastrectomy is safe and effective for elderly patients, achieving significant weight reduction and comorbidity improvement with acceptable complication rates.

METHODS

- Study Design:** Prospective cohort study at Kafrelsheikh University Hospital, Egypt (January-June 2021, 12-month follow-up).
- Population:** 30 obese patients ≥ 65 years (66.7% female, mean age 67.6 ± 2.22 years).
- Inclusion Criteria:** Age > 65 years, BMI 35-60 kg/m², obesity-related comorbidities, failed lifestyle modifications.
- Baseline Characteristics:**
 - Mean weight: 152.69 ± 15.91 kg.
 - Mean BMI: 54.23 ± 4.19 kg/m².
 - Diabetes: 73.3%.
 - Hypertension: 80.0%.
 - Arthropathy: 83.3%.

- Surgical Technique:** Standard 5-port LSG with 36-Fr bougie calibration, staple line reinforcement, methylene blue leak test.
- Follow-up:** Multidisciplinary team (surgeon, endocrinologist, psychologist, dietitian) at 1, 3, 6, and 12 months.
- Statistics:** IBM SPSS v24.0, $p < 0.05$ significant.

RESULTS

Weight Loss Outcomes (All $p \leq 0.001$)

- Progressive Weight Reduction:**
 - Baseline: 152.69 ± 15.91 kg $\rightarrow$ 12 months: 92.37 ± 10.64 kg.
 - Total weight loss: 60.33 ± 8.59 kg (39.5% reduction).
 - BMI: $54.23 \pm 4.19 \rightarrow 33.04 \pm 2.75$ kg/m² (39% reduction).
 - %EWL: $61.65 \pm 6.95\%$ (range 49.8-83.3%).
 - 100% success rate (all patients achieved %EWL $> 50\%$).

Glycemic Control (All $p \leq 0.006$)

- Dramatic HbA1c Improvement:**
 - Baseline: $9.56 \pm 2.55\%$ $\rightarrow$ 12 months: $5.34 \pm 1.53\%$.
 - 44% HbA1c reduction (poorly controlled $\rightarrow$ normal range).
 - Diabetes resolution: 75% (21/28 patients).
 - Diabetic prevalence: 73.3% $\rightarrow$ 23.3% ($p = 0.001$).
- Comorbidity Resolution (All $p \leq 0.001$).**
- Exceptional Improvement Rates:**

Comorbidity	Baseline	12 Months	Resolution	p-value
Hypertension	80.0%	6.7%	91.6%	0.0001*
Arthropathy	83.3%	16.7%	80.0%	0.0001*
Diabetes	73.3%	23.3%	75.0%	0.001*

Safety Profile

- Low Complication Rate (16.7%):**
 - Bleeding: 3.3% (1 patient) - managed conservatively
 - Surgical site infection: 3.3% (1 patient) - antibiotics
 - Vomiting: 6.7% (2 patients) - antiemetics
 - Chest pain: 3.3% (1 patient) - resolved spontaneously
 - All complications minor and manageable
 - No mortality, no major complications, no reoperations
 - 83.3% experienced NO complications

CONCLUSIONS

- Laparoscopic sleeve gastrectomy is safe, effective, and well-tolerated in elderly patients ≥ 65 years, achieving:
 - Universal treatment success (100% achieved %EWL $> 50\%$)
 - Dramatic comorbidity resolution ($> 75\%$ across all three major comorbidities)
 - Excellent glycemic control with 75% diabetes remission
 - Acceptable safety profile comparable to younger populations
 - No mortality or major complications
- Clinical Recommendation:** Age ≥ 65 years should NOT be a contraindication to bariatric surgery. LSG should be offered to appropriately selected elderly patients with comprehensive preoperative evaluation and multidisciplinary follow-up.

Contact

Dr. Reda F Ali
General Surgery Department, Kafrelsheikh University, Egypt
reda_fawzy@med.kfs.edu.eg