BACKGROUND

- Laparoscopic sleeve gastrectomy (LSG): safe and effective bariatric procedure in adolescents
- Long-term results remain uncertain

OBJECTIVE

- Report and compare the short- and long-term outcomes of LSG in adolescents

METHODS

- Retrospective analysis (2010 - 2013)
  - Baseline
  - Short-term (1y)
  - Long-term (5-7y)
- Outcomes:
  - BMI
  - %EWL (percentage of excess weight loss)
  - Co-morbidities
  - Complications
- Co-morbidities:
  - Insulin resistance (HOMA-IR ≥ 2.5)
  - Dyslipidemia (TC > 200 or LDL-C > 130 or HDL-C < 40 for boys and HDL-C < 45 for girls or TG > 130 mg/dL)
  - Hypertension (SBP > 130 mmHg or DBP > 80 mmHg)
  - Liver steatosis (positive abdominal ultrasound)
- Surgical success: %EWL >50%

RESULTS

- 11 patients (81.8% ♀)
- Pre-operative mean age: 16.4 ± 1.4 years
- Median long-term follow-up: 6.0 (4.8-6.9) years
- No diabetes at baseline
- Complications:
  - No intra or postoperative complications
  - Laparoscopic cholecystectomy: 63.6%
  - Anemia ♀ (hemoglobin <12 g/dL): 55.5%
- Success Rate:
  - Short-term follow-up: 90.9%
  - Long-term follow-up: 27.2%

CONCLUSIONS

- The short-term outcomes from adolescents who underwent LSG showed both weight and metabolic improvements
- Although some adolescents were able to retain metabolic improvements, the long-term outcomes showed that they regained weight and reacquired cardiometabolic risk factors, resulting in a lower success rate
- We also showed an increased risk of cholecystectomy and anemia among adolescent women in the long-term
- Further studies should try to understand to whom the LSG should be targeted for, since for some specific patients, it is a very successful treatment