

Laparoscopic sleeve gastrectomy in adolescents with morbid and dynamic obesity. A controlled monocentric study

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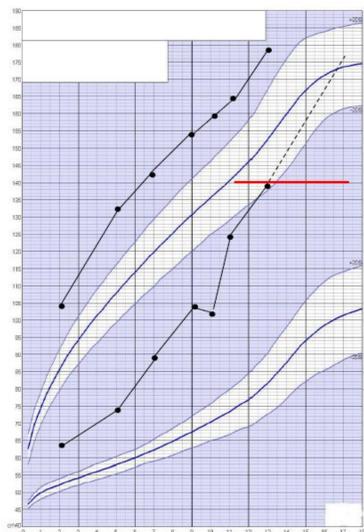
Background

Following years of dietary and lifestyle intervention (DLI) as the only therapeutic option, reports of bariatric surgery are emerging in adolescents with morbid obesity. We present herein preliminary results of our 4-yr sleeve gastrectomy study.

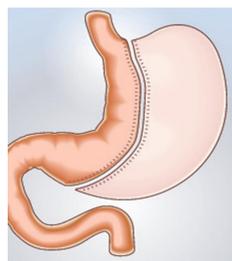
Objective and hypothesis

To compare the effects of laparoscopic sleeve gastrectomy (LSG) and intensive DLI in adolescents with morbid obesity (ie BMI > 4 DS) and extremely active weight gain (ie > 0.6 kg/month).

Patients and Methods



Growth chart of an adolescent with morbid obesity and extremely active weight gain. The red line indicates the « cut-off » of 100 kg, attained at 13 years of age.



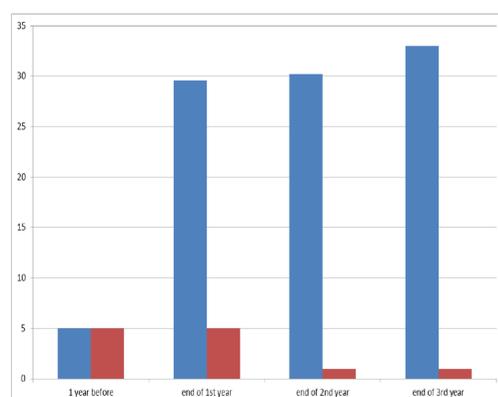
Schematic representation of sleeve gastrectomy

	SURGERY	DLI
Number	45	100
Age (years)	17.3 ± 1.6	15.5 ± 1.9
BMI / z-score	45.5 ± 8.4 / 4.6 ± 0.8	38 ± 4 / 4.4 ± 0.6

Baseline characteristics of study population

Results

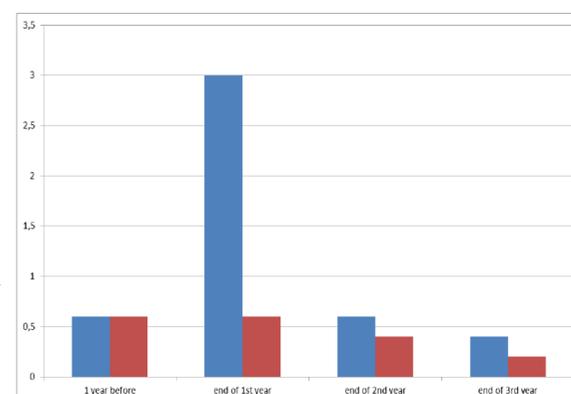
Patients who underwent LSG lost 33.2 ± 8.2 % of their initial body weight (98 ± 2 % of excess body weight) ie a total of 40.4 ± 5 kg over the whole period of observation: 29.6 ± 8.7 % one yr post-surgery (-3 ± 0.6 kg/mo); 30.2 ± 6.5 % at the end of the 2nd year (-0.6 ± 0.2 kg/mo) and 33.3% (-0.41 ± 0.2 kg/mo) at the end of the 3rd year. In comparison, the control group lost little weight (0.5 ± 0.3 kg/mo) and only in the 1st year, a rate observed in patients the year before LSG (0.6 ± 0.4 kg/mo) and after the 1st post-surgical year. Durable improvement of IR, glucose tolerance, serum lipids, arterial pressure, QoL were observed in all patients following LSG, but did not correlate with the magnitude of weight loss.



Weight loss (% of initial body weight)

Dynamic of weight loss (kg/month)

Blue: SG
Red: DLI



Conclusions

While classical LDI had almost no effect on severe obesity in morbidly obese adolescents, preliminary results support important and durable benefits of LSG.

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Disclosure statement

none of the authors have conflict of interest to declare.

