Long-term outcomes of modified LSG in morbid obese patients.: a single-center randomized controlled trial.

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Summary

Problem. Whether the boogie diameter and the distance between the resection and the pylorus are important for achieving long-term, permanent results during laparoscopic sleeve gastrectomy (LSG), as well as preventing obesity recurrence within 5 years, is still being debated, and the final consensus on this issue is ongoing.

Aim of the study. The aim of this randomized study was to investigate the effect of reducing the boogie diameter and the distance from the pylorus to the resection on the long-term outcomes of LSG.

Material and methods.173 patients with body mass index 40–85 kg/m² were included into the study. Age of patients varied from 18 to 65 and 115of them were females. According to the technique of laparoscopic surgery the patients were randomized to 2 groups:**1**-85 patients,diameter of boogie 36Fr and over,distance between the point of resection and pylorus 4-6cm;**2**-88 patients, diameter of boogie 32Fr, distance between the point of resection and pylorus 2 cm.The main criterion of comparison was the rate (%) of excessive weight loss on 6^{th} and 12^{th} month after surgery.The additional criteria of comparison were the changes in progression of concomitant diseases and complications after surgery.All patients were followed-up for 1-5 year.

Results. Patients of 1^{st}group have lost 61±3%of excessive weight 6 months after surgery, and 73,4±4%of excessive weight 12months after surgery.According results in patients of 2^{nd}group were 78,7±3% The difference between the groups was statistically significant both 6 and 12month postoperatively($p<0.05$). Also, in the long-term period, 64% of patients in group 1 were able to maintain normal weight loss after 5 years, while this figure was 82% in group 2. Although the difference in weight loss between the groups at 1 year was not significant, but the 5-year result was satisfactory in terms of maintaining the weight lost in group 2.There was no difference in complications between the groups, and there was no mortality.

Conclusion. This randomized study has shown that32Fr boogie and 2cm for point of resection in LSG is more effective for rapid weight loss than36Fr and over boogie and 4-6cm for point of resection. It also made a significant difference in preventing weight regain over a 5-year period and does not increase the complication rate.