



EFFECT OF INTRAGASTRIC BALLOON INSTALLATION AND LAPAROSCOPIC SLEEVE GASTRECTOMY TO COMORBIDITY REDUCTION AND CARDIOMETABOLIC DISEASE STAGING IN 6 MONTH AFTER PROCEDURE



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BACKGROUND:

Achieving a weight loss is an important goal of bariatric surgery, given the increased risk for weight-related morbidity and mortality. The most common comorbidity at obesity are arterial hypertension, diabetes, non-alcoholic fatty liver disease (NAFLD), depression. Article is devoted to evaluation of comorbidity in patients with obesity III after weight loss after Laparoscopic Sleeve Gastrectomy (LSG) and Intra-gastric balloon installation (IBI).

OBJECTIVE:

To determine effect of Laparoscopic Sleeve Gastrectomy (LSG) and Intra-gastric balloon installation (IBI) to weight loss and comorbidity in patients with obesity III.

MATERIALS & METHODS:

A total of 20 patients mean age $34,7 \pm 2,5$ years; 80% female, BMI = $49,4 \pm 2,5$ kg/m², 6 of them were with extremely high weight (BMI = 62,1-75,4 kg/m²). Intra-gastric Balloon (Allergan Inc., USA) was installed to patients with extremely high BMI (n=6), another patients were undergoing Laparoscopic Sleeve Gastrectomy (n=14). Comorbidities was evaluated according to Cardiometabolic Disease Staging (Guo, 2015).

RESULTS:

It is established, that adiposity of III (BMI $49,4 \pm 2,5$ kg / m²) associates with hyperlipidemia / hypertriglyceridemia in 85 % of cases; diabetes mellitus-2 / glucose intolerance - in 50 %, arterial hypertension in - 45 %; non-alcoholic fatty liver disease (NAFLD) - in 35 % of cases. Laparoscopic Sleeve Gastrectomy and Intra-gastric Balloon Installation allow to achieve weight loss on 21,1% and 16,2 % vs initial weight, LSG and IBI were similar effective to weight loss ($p > 0,05$); that caused decreasing of comorbidity: glucose intolerance is reduced in 2 times, arterial hypertension - in 3 times; dislipidemia - in 1,9 times; NAFLD - in 1,8 times in 6 months after intervention. LSG and IBI allow to improve parameters on scale Cardiometabolic Disease Staging, having achieved zero cardiometabolic risk at 35% of patients, and at other patients - transition in easier of its stage. Weight loss and reduction of comorbidity after LSG and IBI are combined with decrease of proinflammatory cytokines – IL-6, TNF-a and C-reactive protein in blood serum.

CONCLUSION:

LSG and IBI were similar effective to weight loss ($p > 0,05$); that caused decreasing of comorbidity: glucose intolerance is reduced in 2 times, arterial hypertension - in 3 times; dislipidemia - in 1,9 times; NAFLD - in 1,8 times in 6 months after intervention. IBI should be recommended as 1-st step of obesity treatment in patients with extremely high weight, because this procedure causes decreasing of comorbidity and perioperative risk.

BIOGRAPHY

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