



كلية العلوم



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Title: Laparoscopic greater curvature plication effect on inflammatory cytokines of morbidly obese patients

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ABSTRACT

Introduction: Obesity is considered as a chronic low-grade inflammatory state due to adipose tissue inflammation and is accompanied by secretion of certain pro-inflammatory cytokines. The purpose of the current study is to investigate the impact of weight loss following laparoscopic greater curvature plication (LGCP) on the level of blood cytokines in morbidly obese people. **Materials and Methods:** Thirty patients diagnosed as morbidly obese (range of body mass index (BMI): 37–45 kg/m²) were included. Serum samples were collected from patients preoperatively and 4 months postoperatively to determine the levels of tumor necrosis factor α (TNF- α), interleukin 6 (IL-6), interleukin 1 β (IL-1 β), and interleukin 10 (IL-10) using enzyme-linked immunosorbent assay (ELISA). **Results:** BMI reduction and weight loss were proven 4 months following operation. A significant decrease in serum levels of the pro-inflammatory cytokines, TNF- α , IL-6, and IL-1 β , was observed 4 months postoperatively. On the other hand, the level of the anti-inflammatory IL-10 cytokine was significantly increased in the serum of postoperative patients when compared to preoperative ones. **Conclusion:** It can be concluded that weight loss following LGCP was accompanied by decrease of the serum pro-inflammatory cytokines and an increase of the anti-inflammatory cytokine that may lead to improvement of the inflammatory response of morbidly obese people.

Keywords: Bariatric surgeries, Cytokines, Laparoscopic greater curvature plication, Obesity.

عميد الكلية

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