

**Impact of post-laparoscopic sleeve gastrectomy weight loss on C-reactive protein, lipid profile and CA-125 in morbidly obese women.** عنوان البحث باللغة الانجليزية:

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**Introduction:** Obesity increases production of adipose tissue-derived proteins, such as tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) and interleukin-6 (IL-6). Also there are elevated levels of C-reactive protein (CRP) and IL-6, CD8, and CD4, indicating chronic subclinical inflammation. Since obesity represents a serious risk factor in several metabolic diseases, identifying the status of carbohydrate antigen-125 (CA-125) would further link obesity and tumors. **Aim:** To examine the effect of weight loss by laparoscopic sleeve gastrectomy (LSG) on plasma CRP, lipid profiles and CA-125 level in morbidly obese patients. **Material and methods:** This prospective study was conducted in the Surgery Department, Fayoum University Hospital, between August 2013 and September 2015. To assess the effect of excess weight loss following this operation CRP, lipid profile and CA-125 were measured before and 12 months after the LSG operation for weight loss. The study included 30 cases of morbidly obese patients: 30 (100%) females aged 23–55 years who were considered clinically obese with a mean body mass index of  $42.71 \pm 4.3$  (38–46) kg/m<sup>2</sup> and mean age of  $40.3 \pm 8.5$  (23–55) years. **Results:** A mean weight loss of 29.30% decreased plasma CRP, triglycerides, total cholesterol and low-density lipoprotein cholesterol (LDL cholesterol), CA-125 level and increased high-density lipoprotein cholesterol (HDL cholesterol) The percentage weight loss was significantly associated with changes in plasma CRP, triglycerides, total cholesterol, total HDL cholesterol and CA-125. **Conclusions:** Weight loss by LSG improves inflammation, dyslipidemia and CA-125 level.