



البحث السابع

عنوان البحث باللغة الأنجليزية :

Changes of Bone Metabolism Markers in Obese Individuals with Laparoscopic Sleeve Gastrectomy (LSG).

الملخص باللغة الإنجليزية :

Bariatric surgery has proven to be a valuable treatment option for morbid obesity. Laparoscopic sleeve gastrectomy (LSG) has gained popularity as a bariatric procedure due to its safety, low complication rate and excellent weight loss results. As calcium requires the action of stomach acid to become soluble, so by eliminating all HCL secreting parietal cells and pepsin secreting chief cells in sleeve gastrectomy calcium becomes unable to be absorbed. A decrease in whole body bone mineral content was seen at first two years post SG. If bone loss continues even at slow rate, these patients may have an increased risk for fractures later in life.

The main aim of this study is to evaluate vitamin D, PTH and calcium serum after SG and its impact on modulation of postoperative nutritional monitoring and supplementation. This prospective study was done on 50 morbidly obese patients; (33 females and 17 males), with mean age of 31.8 ± 7.6 years and mean BMI of 41.5 ± 4.6 , underwent LSG operation. Serum calcium, PTH and vitamin D were measured before and 6 months after LSG.

The study revealed a statistically significant reduction in calcium level from baseline to post-operative ($p < 0.0001$), compared with statistically significant elevation in PTH and vitamin D from baseline to post-operative ($p < 0.0001$). Negative correlations between vitamin D level, weight and BMI were noticed. As a conclusion, LGS is an effective surgery for the management of morbid obesity. An adequate supplementation is important to avoid micronutrients deficiencies and greater weight loss does not require higher dosage of multivitamins.