BATTLE OF THE PROCEDURES: LAPAROSCOPIC SLEEVE GASTRECTOMY (LSG) VS BANDED LAPAROSCOPIC SLEEVE GASTRECTOMY (B-LSG). A SYSTEMATIC REVIEW.

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INTRODUCTION

Obesity is steadily increasing in prevalence and has become a significant growing concern worldwide . The prevalence of obesity is rising in the United States with approximatel 34% of adults and 15% of children being affected. Consequently, the risk of developing comorbidities such as type 2 diabetes and hypertension has become increasingly prevalent within the general population and is more commonly seen in individuals with morbid obesity. This review seeks to understand how short and long-term weight loss outcomes of the Laparoscopic Sleeve Gastrectomy (LSG) compare to the Banded Laparoscopic Sleeve Gastrectomy (B-LSG). Additionally, it examines differences in the remission of obesity-related comorbidities between the two. Though various treatment modalities are available, bariatric/ metabolic surgery has shown strong evidence of inducing significant weight loss and reversing obesity-related comorbidities. This review particularl compares the outcomes of Sleeve Gastrectomy (LSG) and Banded Sleeve Gastrectomy (B-LSG).

METHODOLOGY

Our systematic review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. A thorough search of electronic databases, such as PubMed and Google Scholar was conducted from 2000 to 2023. The search terms included "laparoscopic sleeve gastrectomy", "banded laparoscopic Sleeve gastrectomy", "bariatric surgery", "comorbidity, Short term", "comorbidities, long-term", "surgery, (laparoscopic", and MeSH terms such as "gastrectomy" [Mesh], "bariatric surgery" [Mesh] and other related terms. The inclusion criteria covered clinical studies (randomised controlled trials, observational studies) comparing LSG and bLSG in adult patients with obesity. Studies with inadequate sample sizes, non-English publications or non-human subjects were excluded. These studies were categorized into two groups: Banded LSG and Non-banded LSG. The outcomes were further broken down into Excess Weight Loss (EWL%) and Resolution of Co-morbidities at 2-year Follow-up.

RESULTS

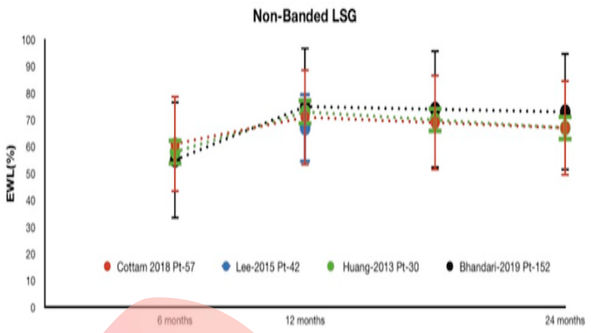


Figure 1

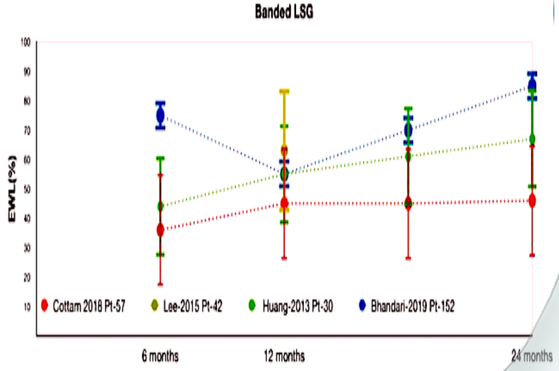


Figure 2

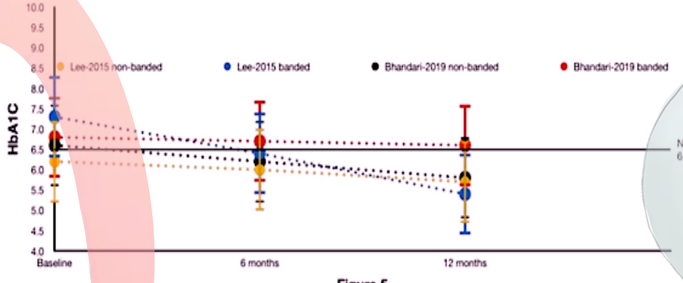


Figure 5

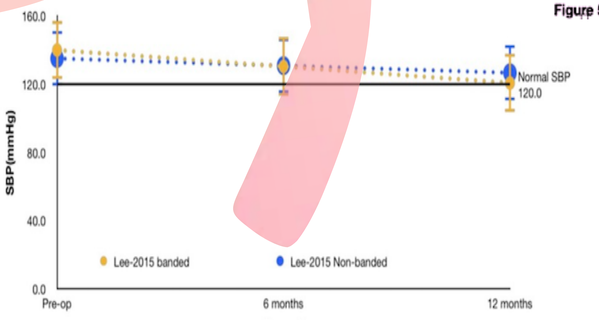


Figure 3

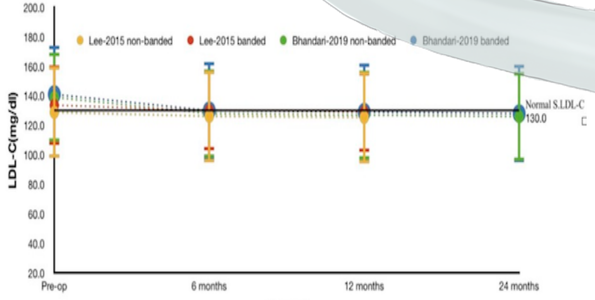


Figure 4

RESULTS

There was a total of 478 Patients included in 4 studies. Figure-1, Figure-2. We got to know that in short-term subgroup analysis as the following:- The Banded LSG shows an acute increase in excess weight loss(in %) in the patient during the first year postoperative period. It is more compared to Excess weight loss (%) in non-banded Laparoscopic Sleeve Gastrectomy. This trend generally decreases in the 2-year follow-up of the patient which results in nearly identical Excess weight loss in patients of both surgeries. described the Post-surgery effects of these surgeries in Co-morbidities such as Diabetes, Hypertension and Cholesterol levels in the form of HbAlc, Systolic Blood Pressure(SP) and Low-density Lipoprotein(LDL-C) respectively. Figure-3, Figure-4 and Figure-5: The comorbidities resolved in both surgeries but they are nearly identical in both surgeries even in 2-year post-surgery follow-up. This shows that comorbidity resolution in both surgeries is virtually indistinguishable from each other.

LIMITATIONS

The study analyzed 478 patients from four studies, raising concerns about the generalizability of the findings due to the limited sample size. Additionally, the search spanned from 2000 to 2023, potentially missing out on relevant studies published thereafter. Moreover, the review primarily emphasized short and long-term weight loss outcomes and comorbidity resolution, possibly neglecting other crucial factors in comparing LSG and B-LSG surgeries.

CONCLUSION

The Non-banded LSG, though initially showing lower weight loss results than the Banded LSG, appear to be just as effective 2-year postop. The post -op comorbidity resolution in both surgeries are appeared to be same in both surgeries. Due to these results, we conclude that Laparoscopic sleeve gastrectomy should be prefered against combined Banded Laparoscopic Sleeve Gastrectomv as both surgeries' results are similar