(Fig 1H) and higher 7-day average RER (Fig 1I), indicating preferential carbohydrate utilization.

CONCLUSION: For the first time in vivo, we showed microbiota transplant from post-SG donor into GF recipient mice is sufficient to independently recreate key metabolic benefits of surgery, including weight loss and glycemic improvement. These findings demonstrate that an altered gut microbiome is causal in mediating the metabolic phenotypes of SG.

Figure. Microbiota transplant recapitulates surgical weight loss. (A) SG results in significant weight loss in DIO mice (donors); n=4 sham, n=6 SG, data represent mean ±SEM, ***p<0.001, two-way ANOVA. (B) Cecal microbiota were pooled (n=4 donors per group) and transplanted into germ-free mice. SG-recipients demonstrated (C) greater weight loss, (D) improved oral glucose tolerance, (E) lower overnight fasting glucose, (F) less visceral adipose tissue (VAT), and (G) lower adiposity (VAT weight/body weight); n=9-10 per group, data represent mean ±SEM, *p<0.05, **p<0.01, Student’s t-test. (H) SG-R mice exhibited continuously elevated RER as well as (I) higher 7-day average RER, indicating preferential carbohydrate utilization; n=9-10 per group, data represent mean ±SEM, *p<0.05, **p<0.01, ***p<0.001, Student s t-test.

Midterm Outcomes of Routine Mesh Reinforced Cruroplasty in Lars: Bio-A vs Phasix in 200 Consecutive Patients

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INTRODUCTION: Routine mesh-reinforced cruroplasty in laparoscopic antireflux surgery (LARS) is believed to decrease hiatal hernia recurrence compared to primary cruroplasty alone. Mesh composition remains a controversial topic, and absorbable synthetic mesh has garnered recent attention. We sought to compare our mid-term results with Bio-A™ and PHASIX™, 2 commonly used bioabsorbable meshes in LARS.

METHODS: A retrospective review of a prospectively collected database was performed for 200 consecutive patients who underwent LARS between April 2018 and December 2019. Patients were implanted with either BioA or PHASIX in an alternating sequence. Preoperative workup including endoscopy, barium swallow, pH studies, and manometry, as well as preoperative and postoperative Gastroesophageal Reflux Disease-Health Related Quality of Life (GERD-HRQL), and Laryngopharyngeal Reflux Symptom Index (LPR-RSI), were extracted. Outcomes of interest were objective hiatal hernia recurrence, postoperative dysphagia requiring endoscopic dilation, and recurrent reflux.

RESULTS: At a median follow-up of 20 months (range 10-32 months), there were no mesh-related complications. Recurrent hernia was identified in 6.5% of patients, with no significant difference between Bio-A™ and PHASIX™ groups (5% vs 8%, p = 0.57). Mesh type also had no effect on postoperative rates of dysphagia (12.5%) or recurrent reflux (8.5%). The mean GERD-HRQL and LPR-RSI scores improved significantly compared to baseline in both groups (p < 0.001).

CONCLUSION: These results support the use of absorbable synthetic mesh for routine reinforced cruroplasty in LARS. Both BioA and Phasix exhibit excellent safety profiles and reflux symptom control, with better mid-term hernia recurrence rates than reported in recent systematic reviews.

Patterns of Coverage in Pediatric Bariatric Surgery

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INTRODUCTION: Pediatric bariatric surgery is increasingly recognized as a safe and effective option for the management of obesity and obesity-related conditions. However, insurance coverage is a key barrier to accessing these procedures. Criteria are variable and often not evidence-based. In an effort to characterize common patterns in insurance coverage, we report coverage criteria for adolescents relative to adults.

METHODS: We surveyed medical policies of the 50 highest market share health insurance providers in the USA. Private insurer coverage criteria included age, Tanner staging, skeletal maturity, BMI, procedures covered, medical weight management requirements, comorbidities, and multidisciplinary team criteria. These were then compared with the American Society for Metabolic and Bariatric Surgery (ASMBS) guidelines.

RESULTS: Two-thirds (n=33, 66%) of companies provided inclusion criteria for adolescents. All policies covered RYGB (n=33), most