

What Is the Effect of Metabolic Bariatric Surgery on OSA Endotypes, and Are the Baseline Endotypes Associated With Improvements in OSA?

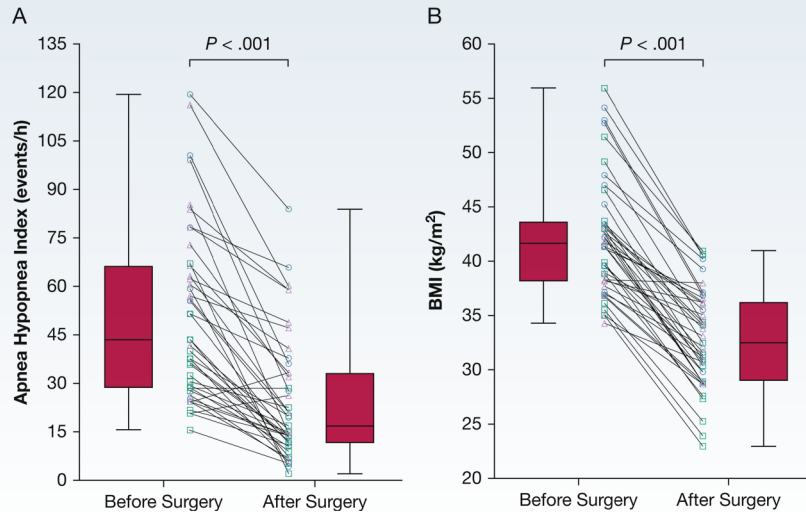
STUDY DESIGN

OSA endotypes were measured during overnight polysomnography in 43 patients before and after bariatric surgery

OSA endotypes were measured in a subset of patients (n = 10)

RESULTS

Metabolic bariatric surgery was associated with improvements in apnea-hypopnea index (AHI), BMI, upper airway collapsibility, and loop gain



Observed associations

Weight loss ↓ Arousal threshold

Improvement in airway collapsibility ↓ AHI

↓ Arousal threshold ↑ Improvements in AHI

Multivariable models found less collapsibility in upper airways and low loop gain at baseline may be more likely to see improvements in OSA severity

The findings of this study suggest that metabolic bariatric surgery is associated with improvements in weight, AHI, upper airway collapsibility, and loop gain and may be particularly effective for those with mild upper airway collapsibility and low loop gain.