

Bariatric Surgery Outcomes following Kidney Transplantation

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Background

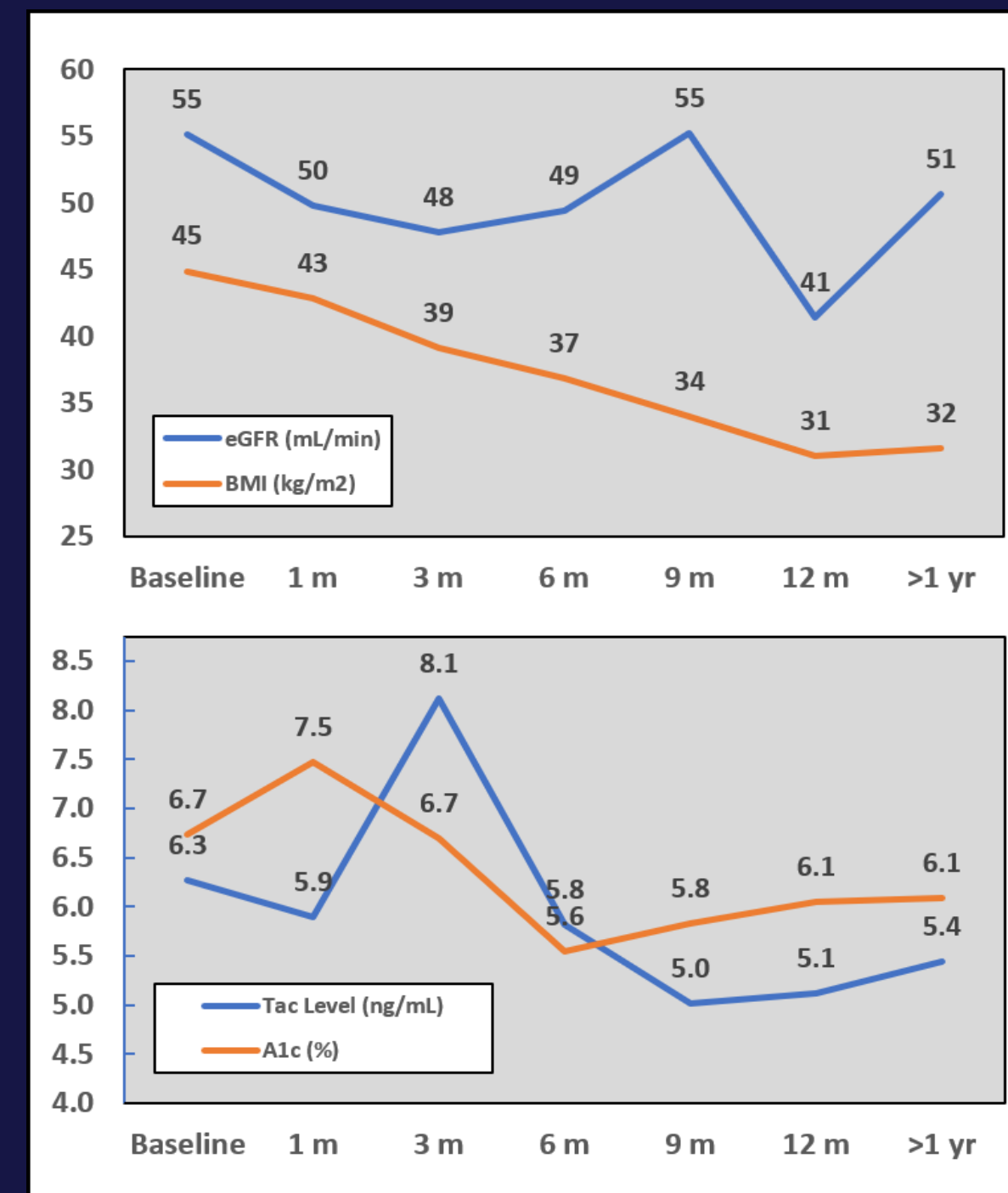
- Bariatric surgery prior to renal transplant has been effective for patients needing a renal transplant but restricted by a high BMI
- However, long-term outcomes of bariatric surgery following kidney transplantation (KTX) are not well known
- Weight gain can often follow renal transplants in prior high-BMI cases, resulting in less positive outcomes and suggesting bariatric surgery as a useful treatment strategy
- The aim of this case series was to obtain preliminary data of the safety and efficacy of bariatric surgery in KTX recipients

Hypothesis

- Patients who undergo bariatric surgery after a renal transplant should experience positive renal, as well as bariatric, surgery outcomes

Methods

- This was a longitudinal case-series analysis that included patients that underwent bariatric surgery following KTX between 2017-21
- Outcomes assessed included surgical complications, weight loss (BMI), renal function, A1c, and BPs, collected serially at baseline through 1-year post-surgery



Results

- A total of 8 patients underwent bariatric surgery following KTX (7 sleeve/1 gastric bypass)
- All were female and 6 were African Americans, with a mean age of 48 ± 3 years
- The average reduction in BMI from baseline to end of follow-up was 12.2 kg/m^2 (95% CI -7.6 to -16.8 , $p < 0.001$, Top Figure)
- There were two AKI events; both occurred within 3 months of surgery; one patient fully recovered while the other developed moderate CKD; renal function was stable in the remaining 6 patients (Top Figure)
- There was increased variability in tacrolimus levels for 3 months following surgery, which stabilized (Bottom Figure); 5 of 8 patients had DM, 40% of these were uncontrolled at baseline and 100% were controlled at 1-year; HgbA1c levels fell from 6.7% to 6.1% (95% CI -1.6% to 0.14% ; $p = 0.087$, Bottom Figure)
- BP control was 63% at baseline and 100% at the end of follow-up

Conclusion

- Bariatric surgery is safe and effective in renal transplants patients
- Post-operative AKI and high tacrolimus variability should be closely monitored and managed