

Post-operative Weight Loss Using A Ketogenic Feeding Tube Diet

Oliver R. Di Pietro, MD, FACP, Clinical Assistant Professor of Medicine, Nova Southeastern College of Osteopathic Medicine, European Ketogenic Weight Loss Clinics, Miami, FL
Eric C. Westman, MD, MHS, Lifestyle Medicine Clinic, Duke University, Durham, NC
Melissa P. Dewing, RN, BSN, European Ketogenic Weight Loss Clinics, Miami, FL

Abstract

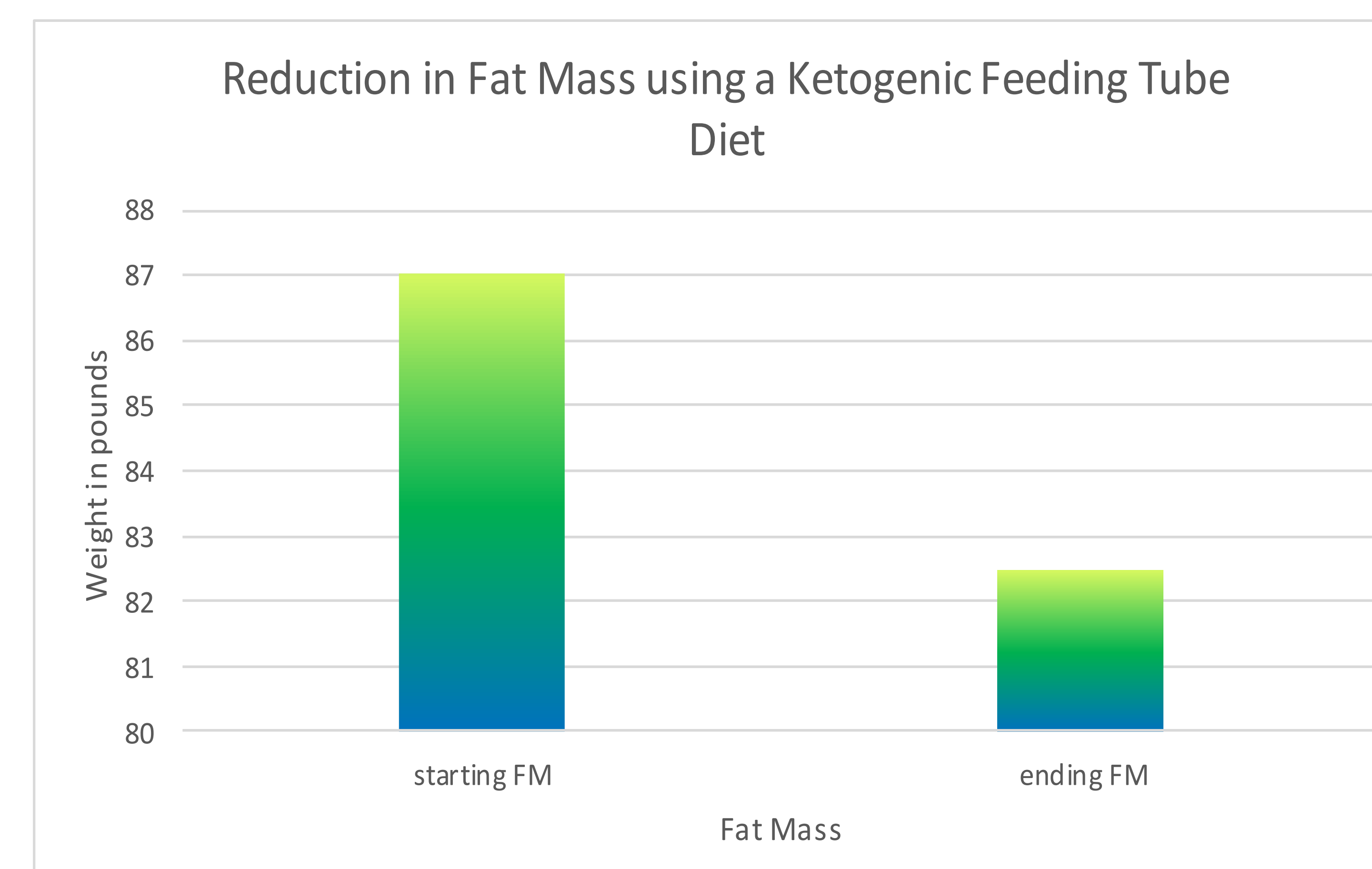
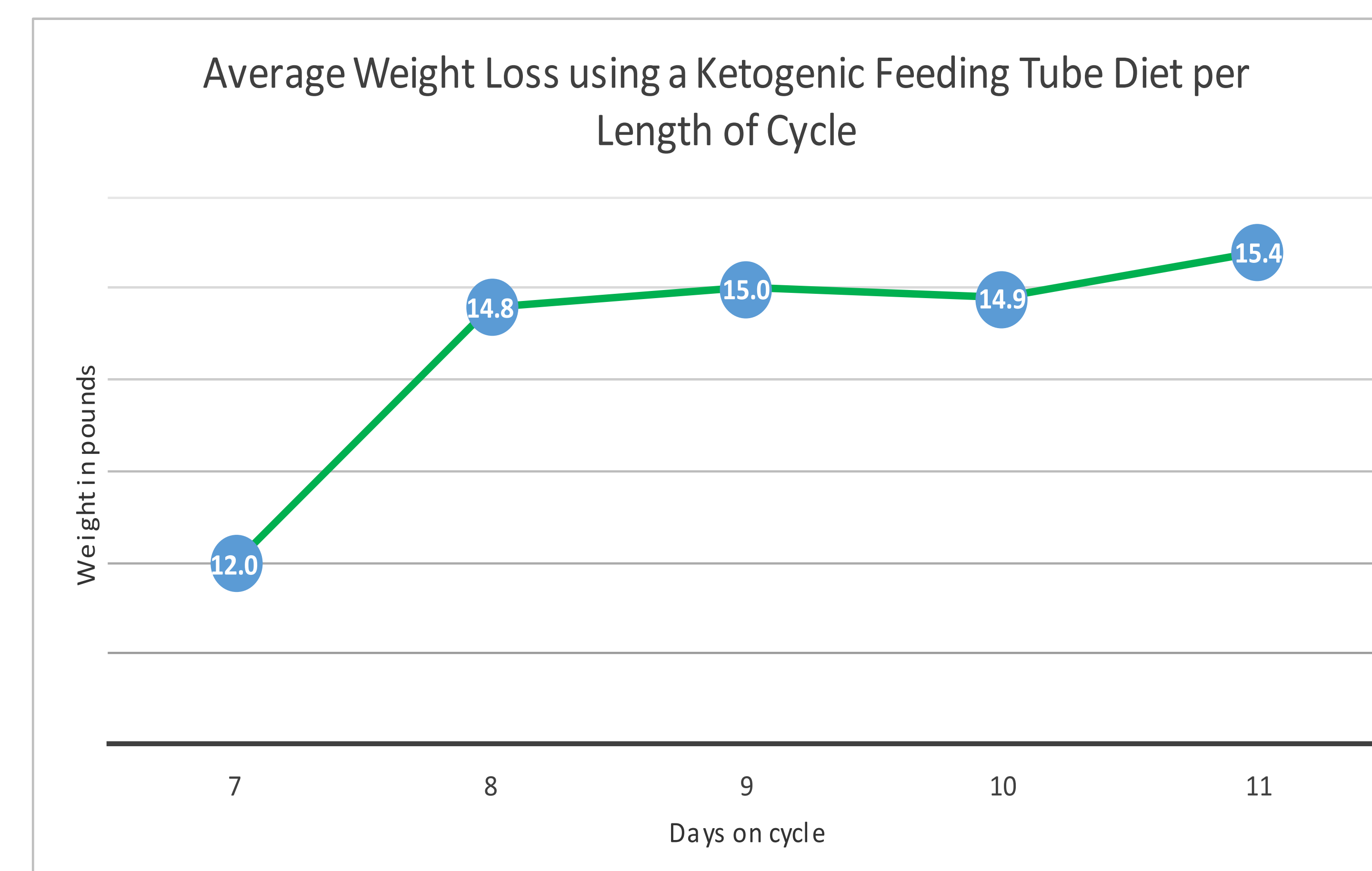
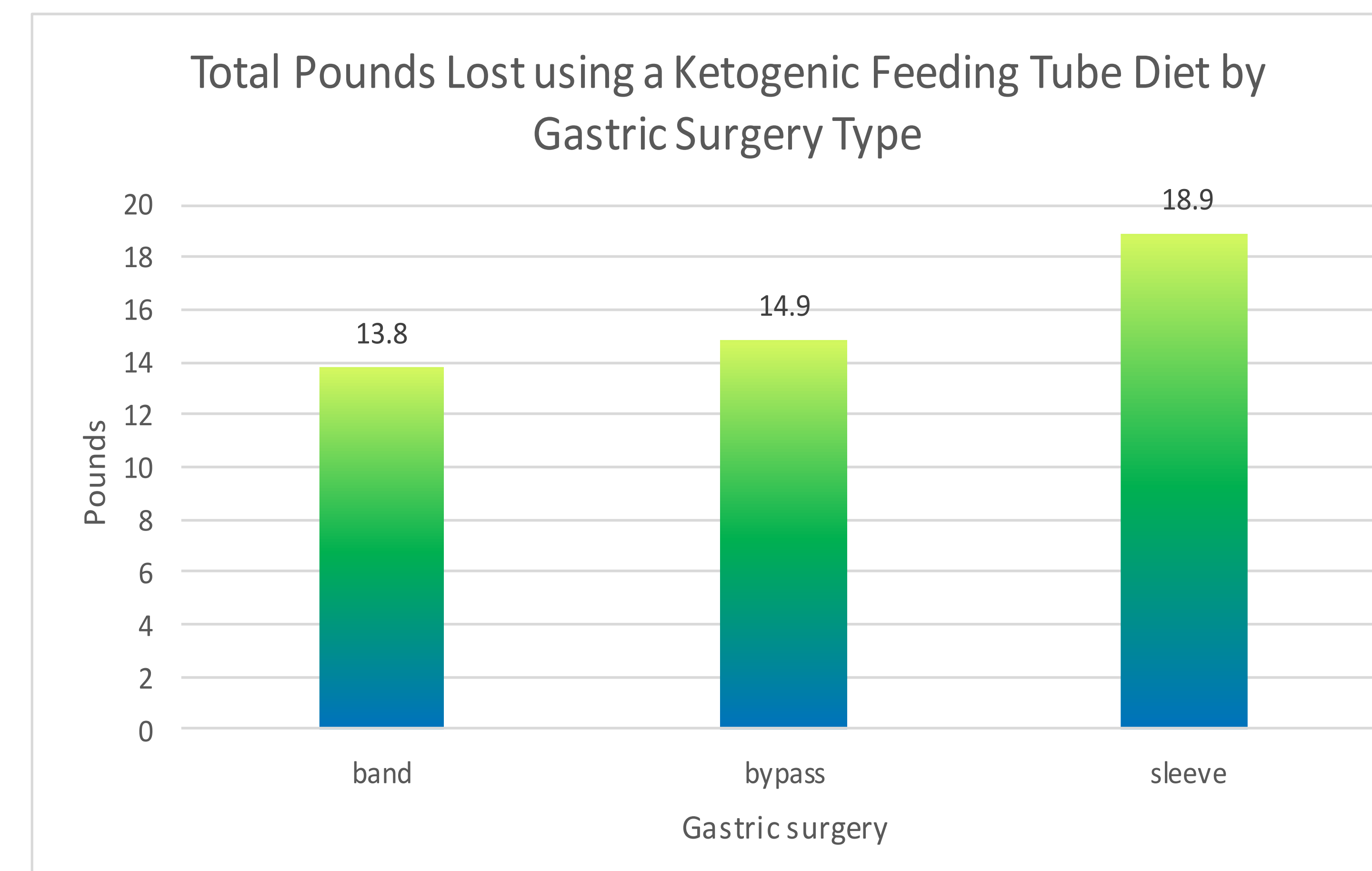
According to research provided by the CDC 69% of adults age 20 and over are overweight or obese in the United States. As many people are not successful with lifestyle, medication or surgical approaches to treat obesity, alternative and/or rescue treatments are needed to address this epidemic. For individuals who have failed to maintain adequate weight loss one year after bariatric surgery or need to lose weight preoperatively an approach using a ketogenic formula delivered via a nasogastric feeding tube may be desirable.

Purpose

The purpose of this study was to determine if a ketogenic feeding tube diet could be used safely for the treatment of obesity secondary to rebound weight gain post-bariatric surgery.

Methods

One bariatric physician retrospectively analyzed the charts from ten patients who regained significant weight at two years after undergoing weight loss surgery. Patients were screened to have previously undergone bariatric surgery, have a current BMI > 27 kg/m², and were excluded if they had never tried other weight loss programs, or had an unstable medical condition. After patients were medically cleared with laboratory, history and physical exam, a 6 French, 36 inch pediatric nasogastric feeding tube was inserted. Patients received instruction on how to prepare and administer a patent pending ketogenic formula. The continuous feed delivered from 600 to 800 kcal/day over a 24 hour period. Body mass composition was determined by DEXA scan (GE Lunar Prodigy). Follow up visits occurred day 3, 5, 7 and 10 to evaluate progress and vital signs. To maintain the weight loss, patients were counseled to follow a lifestyle program after the completion of the diet cycle.



Results

Ten patients were evaluated; six patients were status post gastric band, three patients were status post gastric bypass and one patient was status post gastric sleeve. At two years after gastric surgery patients were classified as overweight or obese. All patients completed seven or more days of the ten day diet cycle with the average number of days on the diet at 9.5. Mean total weight loss was 14.6 pounds with a 4.6 pound reduction in fat mass. Average initial weight was 197.8 pounds with an ending weight of 183.1 pounds. Mean weight loss produced from the diet, classified by surgery type included: 13.8 pounds for post gastric band, 14.9 pounds post gastric bypass, and 18.9 pounds post gastric sleeve. All patients tolerated the ketogenic feeding tube diet without complication and minimal side effects which include diarrhea, cramping, abdominal bloating and headache.

Conclusion

A ketogenic feeding tube diet can be used safely for the treatment of obesity secondary to rebound weight gain at two years post-bariatric surgery.

References

Cappello, A., Cappello, G., De Luca, P., & Franceschelli, A. (2012). Ketogenic enteral nutrition as a treatment for obesity: short term and long term results from 19,000 patients. *Nutrition & Metabolism*, 9 (96), 1-7. doi:10.1186/1743-7075-9-96

Centers for Disease Controls and Prevention (CDC). Health, United States, 2013, table 64. <http://www.cdc.gov/nchs/data/healthus13.pdf#064>. Accessed October 17, 2014.