
NUTRITIONAL SUPPORT USING THE ULTRAMEAL® PROGRAM IN A PATIENT WITH HYPERTENSION AND HYPERCHOLESTEROLEMIA

Purpose

To show how targeted nutritional support with a medical food program may be useful in some obese patients with hypertension and hypercholesterolemia.

Patient's Presentation and History

A 50-year-old Caucasian female presented with obesity, fatigue, hypertension, and hyperlipidemia. She reported struggling with her weight over the previous 15 to 20 years, but described her overall health as "good" despite the need for medications to control blood pressure and general muscle pain. At the time of presentation, she was not exercising regularly. The patient had a strong family history of cardiovascular disease, with myocardial infarction or stroke contributing to the death of both her maternal and paternal grandparents.

Patient's Objective Information

- BMI[†] was 48.5 (indicating morbid obesity), and body impedance analysis (BIA) measured 52% body fat
- Prescriptive medications included hydrochlorothiazide (25 mg/day), lisinopril (30 mg/day), and acetaminophen prn
- Health Appraisal Questionnaire (HAQ) showed elevated scores for thyroid, menopause, and musculoskeletal sections
- LDL cholesterol (160 mg/dL) was elevated and total cholesterol (219 mg/dL) was high
- SMA, CBC, and thyroid panel were within reference range
- Dietary analysis revealed high intake of refined carbohydrates and saturated fats, and low intake of fiber, vitamins E and C, calcium, magnesium, zinc, chromium, selenium, and essential fatty acids

Plan

Along with continuing prescriptive medications, the patient was placed on:

- UltraMeal medical food, 2 scoops bid
- Modified food allergy elimination diet and 1200 calorie 40/30/30 dietary program
- Daily walking and stretching program
- Multivitamin and mineral (without iron) supplement, 1 tablet tid
- 300 mg EPA and 200 mg DHA, 1 capsule bid
- 1000 mg buffered vitamin C, 1 tablet bid
- 50 µg Selenium and 400 IU vitamin E per day

3 and 8 Week Results

After 3 weeks, the patient reported good satiety. She was walking 15 minutes daily and had discontinued acetaminophen. After 8 weeks, she continued doing well and had increased walking to 30 minutes daily.

20 and 30 Week Results

After 20 weeks, the patient noted improved energy and was able to climb stairs without shortness of breath. She reported no more leg or ankle pain. After 30 weeks, she had joined a local fitness club.

The following changes were made to her recommended protocol at 30 weeks:

- Decrease UltraMeal to 2 scoops qd and add 150 calories (with 15 g protein) as a mid-day snack
- Decrease vitamin C supplement to 1000 mg qd
- Add psyllium and rice-based fiber supplement, 1 scoop qd
- Increase multivitamin to 2 tablets bid
- Add 200 mg calcium and 150 mg magnesium, 1 tablet bid
- Add lactobacilli and bifidobacteria probiotic supplement, ½ tsp bid

46 and 58 Week Results

After 46 weeks, the patient's progress continued. Her medications had been decreased to lisinopril (10 mg/day) and hydrochlorothiazide (12.5 mg/day). Due to mid-morning hunger, UltraMeal was increased to the original dose of 2 scoops bid.

After 58 weeks, the patient had lost a total of 124.5 lb and 30% body fat (107 lb fat loss). She was instructed to discontinue blood pressure medications under physician guidance and continue on the UltraMeal Program until her goal weight of 178-188 lb was achieved.

Conclusion

This case study shows that nutritional support for a healthy body composition, such as UltraMeal medical food, supplements, a specialized dietary program, and regular exercise may help promote lean muscle mass and improve blood pressure, blood lipid, and energy levels.

RESULTS

UltraMeal®

NUTRITIONAL SUPPORT FOR THE
MANAGEMENT OF CONDITIONS ASSOCIATED WITH
ALTERED BODY COMPOSITION

Figure 1

After 58 weeks, the patient had markedly decreased her body fat percentage from 52% to 32%.

These results suggest a substantial improvement in the patient's body composition (lean muscle-to-fat-ratio).

38% Reduction in Body Fat

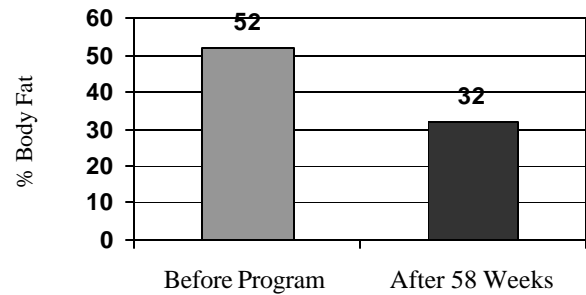


Figure 2

The patient's total cholesterol was reduced from 219 mg/dL to 137 mg/dL (reference range: 120-200 mg/dL).

The results suggest a notable decrease in total cholesterol.

37% Reduction in Total Cholesterol

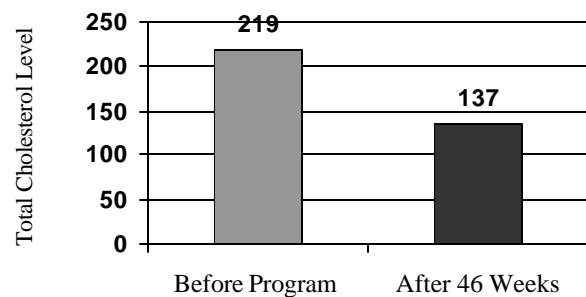
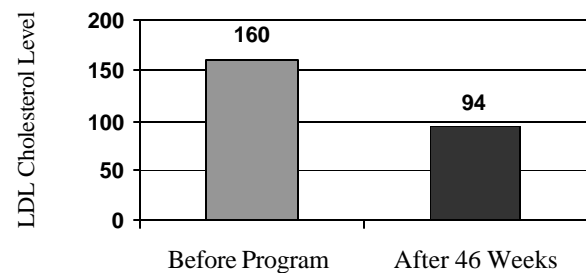


Figure 3

The patient's LDL cholesterol was reduced from 160 mg/dL to 94 mg/dL (reference range: <130).

The results suggest a considerable improvement in LDL cholesterol levels.

41% Reduction in LDL Cholesterol



© Metagenics, Inc. MET908 3/04

[†]BMI is the Body Mass Index and is computed by the weight (kg) divided by the square of the height (m).

Note: The information provided in this case study describes the results of one patient under the care of a licensed healthcare practitioner and may not be a typical response. UltraMeal medical food is to be used under the supervision of a physician or other licensed healthcare practitioner.

Case Study: Nutritional Support Using UltraMeal in a Patient with Hypertension and Hypercholesterolemia. Metagenics, Inc; 014CHOL1103.