CLINICAL VIGNETTE

Life Style Change to Stop Medications

Tsz Ying Amy Lee, M.D.

Introduction

More than 60% of US adults are either overweight with BMI>25 or obese with a BMI>30, reported by the latest National Health and Nutrition Examination Survey (NHANES). We are now seeing more and more patients with multiple medical conditions that relate to excessive weight.

The US Preventive Service Task Force (USPSTF) recommends screening all adults for obesity. Clinicians should offer or refer patients with a body mass index (BMI) of 30 kg/m^2 or higher to intensive, multicomponent behavioral interventions. As physicians, it is our obligation to offer education and help to our overweight or obese patients who may be at risk for developing further conditions.

Case Report

A 73-year-old obese female was referred from her primary care physician for nutrition therapy for her abnormal cholesterol, in addition to her excessive weight that may be contributing to her fatigue and chronic knee pain. She retired early because of these chronic medical issues. She expressed to her primary care physician that she did not want to start any medications for her cholesterol because she was afraid of the side effects. Her initial lipid panel consisted of total cholesterol of 297, HDL 64, triglycerides 314, and LDL 170 All were moderately elevated. Her weight was 204 lbs with a BMI 36.1. Her review of systems was positive for fatigue, knee pain, and anxiety. She stated she ate well and admitted to not being active but preferred to implement lifestyle change and exercise to lose weight and improve her lipid panel and chronic pain.

During our initial evaluation, I reviewed her medical history and prior evaluation by her primary care physician. We measured her body composition using the Tanita® BC 418, which reported the patient's resting metabolism at 1,534 kilocalories/ day, 46.0% body fat, and fat free mass of 109.8 lbs. She started a higher lean protein regimen of 1.0 g/kg body weight and substituted simple carbohydrates with increased complex carbohydrates with goals of 25-30 grams of fiber and 2-3 liters of water per day. There was an additional fifteen minutes of counseling on a new culturally sensitive meal plan and recommendations to increase activity to 150 minutes of mild-to-moderate level of exercise per day. She returned every six weeks to follow-up with repeated body composition measurement. Our follow-up visits involved motivational counseling, reviewing her food diary, and discussing new food alternatives. Her follow-up anthropometric measurements are listed in Table 1.

Table 1

Date	BMI kg/m^2	Resting metabolism kcal/day	Fat %	Fat mass (lbs)	Fat free mass (lbs)
2/2014	33.9	1534	46.0	93.8	109.8
5/2014	32.2	1431	45.8	86.0	102.2
8/2014	31.6	1396	43.7	77.8	100.6
9/2014	29.6	1431	39.1	67.6	105.0
12/2014	27.7	1345	39.1	63.2 (-30.6 lbs)	98.4 (-11.4 lbs)

Her food diary revealed an average intake of 30 grams of protein and 10 grams of fiber from fruits and vegetables, three times a day. She was compliant with the fluid intake of one gallon. Her satiety level was adequate overall with only minimal cravings.

After 10 months the patient has lost a total of 41 lbs, 20% of her body weight, majority of which was from fat mass with only a minimal change of fat free mass by only 11.4 lbs. Her LDL, triglycerides, and HDL all improved (Table 2). She reported better energy and was very motivated to continue on with her weight loss. Her knee pain was due to a torn meniscus.

Table 2

Date	Weight (lbs)	Total cholesterol	LDL mg/dL	HDL mg/dL	Triglycerides mg/dL
2/2014	204	297	170	64	314
10/2014	171	247	143	64	199
12/2014	163	258	148	86	120

Discussion

Overall, this patient's quality of life improved without her feeling deprived on this nutrition regimen. With an appropriate evaluation and understanding of the basics in nutrition, she continues to lose weight by simply eating better and bigger proportions of the right macronutrients. Follow-up will involve reevaluation of her eating habits and repeat body composition measurements to continue her weight loss maintenance every three months.

Conclusion

Lifestyle changes through nutrition and exercise have been the gold standard in curing conditions such as hypertension, dyslipidemia, and type II diabetes, but yet, we are not treating the underlying excessive weight when it comes to acute treatment. The common conditions, hypertension and dyslipidemia, are regularly identified during physical exams. Many studies have reported that losing as little as 5-10% of excess weight can decrease our cardiovascular risk by lowering our triglycerides and LDL.[1] Not only does weight management improve cardiovascular markers, but we can decrease the risk of osteoarthritis and prevent typical injuries, which correlate with BMI decreases.[2] By losing weight, our patient is no longer dependent on any medications for her cholesterol management, and her knee pain has decreased, which increased her quality of life.

REFERENCES

1. **Browning JD, Baker JA, Rogers T, Davis J, Satapati S, Burgess SC**. Short-term weight loss and hepatic triglyceride reduction: evidence of a metabolic advantage with dietary carbohydrate restriction. *Am J Clin Nutr*. 2011 May;93(5):1048-52. doi: 10.3945/ajcn.110.007674. Epub 2011 Mar 2. PubMed PMID: 21367948; PubMed Central PMCID: PMC3076656.
2. **Felson DT**. Weight and osteoarthritis. *Am J Clin Nutr*. 1996 Mar;63(3 Suppl):430S-432S. Review. PubMed PMID: 8615335.

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