

A Clinical Observation - Part 2

Also see Part 1

A High-Protein Regimen and Auriculomedicine for the Treatment of Obesity:

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ABSTRACT

BACKGROUND

In a previous article by Niemtow, "A High-Protein Regimen and Auriculomedicine for Treatment of Obesity: A Clinical Observation" (Medical Acupuncture, Fall/Winter 1997/98, Volume 9, Number 2), a sustained average weight loss of 2.7 pounds (lbs) per week, and a statistical reduction in triglycerides (TG) was reported. Although the total cholesterol (TC) lowered clinically, it was not statistically significant. From this previous group of patients, only 6 data points were available for the determination of TG, TC, heavy density lipids (HDL), and light density lipids LDL). Because of the paucity of lipid data, a larger group consisting of 42 patients was evaluated under the same criteria, with the exception that a the high-protein regimen underwent minor modifications to meet the minimum guidelines of the American Dietetic Association and the United States Recommended Dietary Allowances.

METHODS

Forty-two patients were treated for simple clinical obesity who were either self-referred or referred by their primary physician. The majority of these patients admitted to failing popular diets and never reached their weight goal, or were short termed successful but eventually regained weight. Patients were evaluated to eliminate organic causes. Each patient underwent a history and physical examination. The previous high-protein diet was prescribed with minor modifications. Auriculomedicine was performed for each patient.

RESULTS

The regimen was well tolerated and a statistically significant decrease in weight and TG was observed during the 12-week period starting at week 0. The TC decreased significantly only during the first 6 weeks starting at week 0. HDL levels decreased in the first 3 weeks and started to rise in weeks 9 to 12. LDL appeared to decrease in the first 3 weeks and then, rose in weeks 6 to 12. TC, LDL, HDL value changes were not statistically significant long-term, but this could be due to a diminishing sample population. There were no untoward reactions despite a minor change in the high-protein regimen. Acceptability for the diet remained high, Patients reported that auriculomedicine helped to prevent cravings for carbohydrate-rich foods. After discharge from the program, 38.9% of the patients reported a relapse.

CONCLUSION

A high-protein animal regimen in combination with auriculomedicine was employed successfully to produce a sustained weight loss in patients previously failing popular diets. All patients reached their weight goals losing an average of 1.6 lbs per week. TG levels significantly decreased in a similar fashion, whereas TC and HDL dropped significant in the first 6 weeks and 3 weeks, respectively. LDL levles did not vary significantly. The possible homeostatic effect of auriculomedicine and a high protein regimen on serum lipids warrant further investigations.

KEYWORDS

Obesity, High-Protein Regimen, Weight, Total Cholesterol, Triglycerides, Heavy Density Lipids, Light Density Lipids, Auriculomedicine

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BACKGROUND

Adult obesity remains a clinical challenge (1,2,3). More than 94 million American adults are overweight. In a recent article in Air Force Times, it was reported that nearly half of Armed Forces personnel were overweight (4). Until recently, benign obesity was considered to be the direct result of a sedentary lifestyle plus chronic ingestion of excess calories. Although these factors are undoubtedly the principal cause in some situations, there is now evidence for strong genetic influences on the development of obesity. As much as 50 to 75% of obesity cases may be explained by genetic influences (5).

Millions of dollars are spent on medical visits, diets, and exercise to correct this condition. Even more important are the consequences of long-term obesity linked to many comorbidities.

Acupuncture as an adjunctive solution may be appealing to certain groups of patients, as it appears to be a natural drug-free therapeutic modality. In any case, physician, patient, and medical insurance companies seek reliable, safe, cost-effective solutions, and a low relapse rate to deal with this clinical disorder.

Many patients inquire whether acupuncture might be useful in the treatment of obesity. Given the large prevalence of obesity in our society, it appears to be a worthwhile adjunct to consider.

In a previous paper, 21 patients were observed on a combination of a high-protein regimen and auriculomedicine (6). Weight and TG levels decreased significantly. Clinically, it also appeared that the TC decreased, while HDL and LDL values did not undergo significant changes. Neither of these events, however, could be appreciated because of the small sample size. Patients reported that auriculomedicine was helpful in maintaining compliance and prevented bingeing.

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GOAL

This paper describes a practical and safe approach to clinical obesity when the etiology is dietary mismanagement of calories. In this observation, we observed and followed 42 patients. The larger sample size than previously reported on afforded an opportunity to examine more closely the weight, TG, TC, HDL, and LDL values. The treatment protocol incorporated the same, almost exclusive, animal-protein regimen with minor modifications as described below, and the use of auriculomedicine (6).

Each patient decided how much weight to lose on an individual basis. Aerobic exercise was emphasized but not required.

A High-Protein Regimen and Auriculomedicine for the Treatment of Obesity: A Clinical Observation -

METHOD

Subjects

We enrolled 42 patients with clinical obesity. Each patient underwent a history and physical examination. All patients had lipid panels, fasting blood sugars (FBS), creatinines (Cr), and blood urea nitrogen (BUN) studies. We excluded electrocardiography, thyroid, and urine studies, unless the history and/or clinical examination justified further evaluation. Patients having elevated TC, TG, LDL, and low HDL were not excluded, but further work-up was performed to determine suitability for our program. Patients with elevated FBS levels were excluded.

High-Protein Regimen

1. Meat

- Red (cooked) meat: unlimited
- Chicken: unlimited
- Low-fat fish: unlimited

2. Vegetables

Green vegetables only. Small portions (slightly less than half-a-cup) with at least 2 meals. Example: greens, spinach, peas, asparagus, green beans, broccoli, lettuce, and cucumbers.

3. Fruit, Juice, or Bread

2 (8-oz.) glasses of fruit juice, or 2 pieces of fruit, or 6 slices of low-calorie bread per day (40 calories per slice). They may be mixed, e.g. 3 pieces of bread and 1 fruit, or 3 breads and 1 juice, or 1 juice and 1 fruit. Meat must be eaten with all meals, i.e. apple and meat.

4. Salad Dressing

1 tablespoon of salad dressing a day of any variety is acceptable.

5. Beverages

6 (8-oz.) glasses of water a day must be consumed, with an optional twist of lemon, lime, or orange.

Unlimited diet caffeine-and sodium-free drinks are permissible. Caffeine-free coffee and tea are permitted.

6. Excluded

- No sugar products: cakes, cookies, candy, or soda.
- No starch products
- No potatoes, rice, noodles, or cereals,
- No sauces, gravies, mustard, or ketchup
- No tomatoes, onions, or any vegetables that are not green.
- No dairy products: eggs, cheese, or butter.
- No alcoholic beverages.
- No yellow vegetables.
- No ice cream.

We adhered to and recognized the need to meet the minimum nutritional requirements of the American Dietetic Association Food Guide Pyramid as found on the Internet at [Http://www.eatright.org](http://www.eatright.org) and the United States Recommended Dietary Allowances (7). As a consequence, we modified our regimen by increasing the amount of low-calorie bread (40 calories per slice) from 4 to 6 slices a day. In addition, we added calcium 500 mg, and a multi-vitamin tablet daily (7).

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Auriculomedicine

Auriculomedicine served the purpose of suppressing bingeing. The therapy was started one week after initiation of the high-protein regimen. The auriculomedicine procedure is very simple, consisting of 3 or 4 points: Appetite Control Point, Shen Men, and Point Zero. Tranquilizer Point may be added or substituted for Point Zero (8). The treatment should have a duration of 15 minutes. We have found in some instances, a mild suppression of appetite with therapy over 15 to 20 minutes; this should be avoided. One wants the patient to indulge in eating meat to prompt a weight loss. Seirin blue-topped needles were employed: No. 3 (0.20) x 30mm J type with tube.

Statistical Analysis

Both the pre-treatment and post-treatment samples of the five groups (weight, TG, TC, LDL, And HDL) were first tested for normality using a one-sample Kolmogorov-Smirnov test. Based upon the results of this test, differences between pre-treatment and post-treatment means of the five groups were then compared using either one of two tests. If both the pre- and post-treatment samples of a given group were normal, then a two-tailed paired-differences t-test was used for that group. If either the pre- or post-treatment sample of a given group was not normal, then a two-tailed Wilcoxon signed ranks test was used for that group (Table A). Table B depicts follow-up data on patients that were contacted by telephone. We were interested in determining a relapse rate based on weight gain over time, and other parameters such as no change in weight or weight loss.

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Statistical Results

Weight decreased in a statistically significant manner an average of 19.2 lbs over a 12-week period starting at week 0, going from an average value of 206.2 lbs at week 0 to an average value of 186.9 lbs at week 12 (Figure 1).

TG levels decreased in a statistically significant manner an average of 89.0 mg/L over a 12-week period starting at week 0, going from an average value of 175.1 mg/L at week 0 to an average value of 86.1 mg/L at week 12 (Figure 2).

TC levels decreased in a statistically significant manner an average of 14.7 mg/L over a 6-week period starting at week 0 to an average value of 191.4 mg/L at week 6. Changes thereafter were not statistically significant (Figure 3).

LDL levels did not change in any direction in a statistically significant manner during the 12-week period (Figure 4).

HDL levels decreased in a statistically significant manner an average of 3.8 mg/L over a 3-week period starting at week 0 to an average value of 42.6 mg/L at week 3. Changes thereafter were not statistically significant (Figure 5).

The number of patients participating in the study steadily decreased over the 12-week period. If the number of patients had remained steady, then it is possible that the increasing changes observed in some of the measures toward the end of the study, which were not statistically

significant, would have been significant. It is also possible that these increasing changes would have disappeared.

Table B and Figure 6 show that 50% of the patients did not gain weight, while 38.9% did; 11.1% desired to lose more weight, for whatever reasons. The data goes out to over 91 days and thus, no final conclusions should be made.

RESULTS

Forty-two patients successfully completed a clinical program incorporating a high-protein regimen and auriculomedicine. Each patient reached his or her desired weight goal. The average weight loss was 1.61lbs. per week. There were no clinical complications. Compliance was excellent throughout the course. It was the unanimous opinion of the patient group that the auriculomedicine greatly decreased an urge to binge. There was a significant decrease in weight, TG, TC (up to week 6), and HDL levels (up to week 3). No clinically significant changes occurred in LDL, FBS, Cr, or BUN levels. There were no adverse effects reported by patients from the high-protein regimen or auriculomedicine.

The number of patients participating in the study steadily decreased over a 12-week period as individual goals were met. We telephoned our patients and found a long-term relapse rate of 38.9%; 50% were still maintaining their weight, and 11.1% decided to lose more weight by employing the high-protein regimen alone (Figure 6). Table B only represents 18 patients. Our military patient population is geographically unstable.

Several patients stated that the protein diet was expensive and increased their weekly grocery bill by \$45. Others stated that the diet did not add to their food expenditures.

DISCUSSION

This paper is not a research endeavor nor was it designed as such. Instead, we are reporting on a very efficient clinical treatment for simple obesity that combined a high-protein diet and auriculomedicine.

There are many popular "crash" diets: The One-Week Cabbage/Chicken Soup Diet Plan, the Cambridge Diet, the Doctor Kretznman No-Diet Diet Program and others, which can be easily found in various references, including the Internet. Although it is not the purpose of this paper to compare and contrast other programs, we state our observation and make no claims other than the data presented. The true test of obesity is the relapse rate.

The high-versus-low-protein diet controversy is more an issue of fear and confusion than

fact. From the above data, it appears that the high-protein meat regimen does not produce an acute elevation of lipids; the fact is that there is a significant drop in TG levels. None of the patients complained of fatigue. There was no negative impact on kidney function.

It is believed that a high-protein and low-carbohydrate regimen apparently causes the body to burn its stored body fat to meet energy needs throughout the day. Large amounts of meat must be digested and this, in turn, requires energy. The amount of energy to digest large amounts of protein in the presence of low and simple carbohydrates may lend itself to the rapid metabolism of adipose tissue. It is also well-known that a high-protein diet suppresses insulin peaks and false hunger pains.

One patient, who was no part of this group, requested only auriculomedicine. He was not able to eat a high-protein regimen because of possible kidney disease, and was being treated medically for hyperlipidemia. It is challenging to understand why he also lost weight, and his triglycerides and cholesterol values normalized for the first time since the onset of his condition.

Auriculomedicine and the choice of the Appetite Control Point, Shen Men, Point Zero, and the Tranquility Point attenuate cravings more so for carbohydrates. The role of auriculomedicine as reported by patients allows them to comfortably pass up the need to return to their previous dietary carbohydrate errors. It was noticed that sessions over 20 minutes seemed to mildly suppress the appetite for a few days.

Omura reported that acupuncture can induce decreases in TG, TC, and phospholipids. It may also provide a regulatory mechanism towards homeostasis, which depends on pre-treatment levels. The significant changes for TG and TC that we noted may be due to this homeostatic effect (9,10).

CONCLUSION

In conclusion, this paper demonstrates a practical high-protein diet that is very successful for the treatment of obesity caused by poor carbohydrate management. When coupled with auriculomedicine, patients report a very subjective but definite increase in the quality of the program and prevention of bingeing.

The homeostatic effect of auriculomedicine on serum lipids needs to be further investigated. An effort to obtain an increased patient population size and data points would be of significant interest in determining the long-term effects of our program on weight, TG, TC, LDL, and HDL levels.

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