Changes in chronic low back pain and cardiovascular risk factors using a homeopathic human chorionic gonadotropin–based weight loss program: a case report

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Abstract

Objective: The purpose of this case report is to describe the changes in body weight and biochemical markers in a patient who completed a homeopathic human chorionic gonadotropin protocol.

Case Report: A 52-year-old man reported to an integrative medical center (including chiropractic and osteopathic physicians) for chronic low back pain. The patient reported a 20-year history of chronic, episodic low back pain. A course of spinal manipulative therapy was delivered; however, because of the lack of resolution of symptoms, a radiographic examination was performed, the result of which was essentially normal. Laboratory studies demonstrated hypercholesterolemia, hyperlipidemia, uricemia, and elevated blood glucose. A dietary change in treatment approach was selected.

Intervention and Outcome: The patient was instructed to take 10 drops of a homeopathic human chorionic gonadotropin product under the tongue 5 times daily. His total daily energy (calorie) was limited for the first 30 days of the program while on the homeopathic product. After 4 months, the patient lost a total of 71 lb, pain and disability scores improved, and reductions in serum cardiovascular markers were noted.

Conclusion: The findings of this study showed that weight loss seemed to affect the patient's chronic low back pain and cardiovascular risk factors.

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Introduction

Obesity is becoming an epidemic problem in the United States among both adults and children. According to the Centers for Disease Control and

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Prevention, in 2009, only Colorado and the District of Columbia had a prevalence of obesity of less than 20%.¹ They define *obesity* as a body mass index (BMI) of 30 or greater. Obesity is a significant risk factor for the development of type II diabetes,² sleep disorders,³ metabolic syndrome,⁴ and hypertension.⁴ It may also contribute to breast and cervical cancer in women because of obese women being screened less often for these cancers.⁵ Depression is also found more often in patients with obesity.⁶

Many investigators have evaluated the ability of various weight loss programs to positively impact patients' biochemical risk factors. For example, Hofso et al⁴ compared gastric bypass and lifestyle counseling, and their respective impact on cardiovascular risk factors. They found that type II diabetes, hypertension, fasting insulin, glucose, C-reactive protein, total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein, and triglycerides all statistically significantly improved following both interventions, although gastric bypass showed better improvements.

There have been many commercially available weight loss programs developed in response to the obesity epidemic. One of these, the so-called HcG Diet, was developed by Simeons using injections of human chorionic gonadotropin (HcG). Early data by Simeons⁷⁻⁹ demonstrated the effectiveness of this diet, but other independent studies have not demonstrated a significant effect beyond placebo.¹⁰⁻¹²

More recently, homeopathic versions of HcG have become available over-the-counter directly to consumers and midlevel health care providers. The purpose of this present study is to report on the weight and biochemical markers in a patient who completed a homeopathic HcG protocol, because no studies to date have evaluated a homeopathic version of HcG.

Case report

A 52-year-old man reported to an integrative medical center for chronic low back pain in August 2010. The patient reported a 20-year history of chronic, episodic low back pain. The pain was described as a dull ache across the small of the back without radiation. Sitting for prolonged periods of time, lifting, and running increased the pain, whereas rest and nonsteroidal anti-inflammatory drugs decreased the pain. The patient had been to a chiropractor previously on an as-needed basis during acute episodes. He would discontinue treatment once the pain was "tolerable." He stated that the lumbar pain was constant and rated it

as a 47 on a quadruple numerical pain rating scale (QNPRS).¹³ He also rated it as a 43% disability rating on a functional rating index (FRI).¹⁴ The patient had a positive medical history for gout and a surgical history of an appendectomy at age 30 years. He also reported being in an automobile accident approximately 25 years ago. Because of the lack of resolution to spinal manipulative therapy, a radiographic examination was performed of the lumbar spine. The radiographs were essentially normal, with minor degenerative disk changes at L4 and L5.

The patient's vital signs were as follows: 6' 1" tall, 281 lb, BMI of 37, blood pressure of 125/79 mm Hg, temperature of 98.2°F, and waist circumference of 44". Given these vitals, combined with a history of constant pain despite intervention and gout, laboratory analysis was recommended. The patient related that he had just had laboratory tests performed by his primary care physician and thus released copies to the author (MWM) for review. Table 1 shows an outline of the patient's initial laboratory results before our intervention. The more notable values included total cholesterol, 259; triglycerides, 217; LDL, 178; glucose, 109; and uric acid, 9.8. Patient was currently taking red yeast rice 600 mg daily for his cholesterol, as well as vitamin C and a proprietary product called *Flex Protect* for gout episodes.

Given the cardiovascular risk factors present, the chronic episodic low back pain, combined with the fact that a BMI greater than 30 may likely significantly contribute to his chronic low back pain,¹⁵ the author (MWM) recommended a weight loss program using a homeopathic HcG product. The patient agreed and also gave his HIPAA-approved written consent to publish his results. The program was designed in a manner similar to the original plan by Simeons.⁸ The main difference was the use of an over-the-counter combi-

Table 1 Patient's laboratory results before and after intervention

	Before treatment	After treatment
Cholesterol	259	161
Triglycerides	217	95
LDL	178	111
Glucose	109	77
Uric acid	9.8	8.0
QNPRS	47	23
FRI	43%	18%
Weight	281 lbs	210 lbs
BMI	37	28

nation homeopathic HcG product (Homeopathic HcG; Deseret Biologicals, Inc, Sandy, UT) instead of the prescription injectable HcG. However, the dietary intake outlined by Simeons⁸ was followed.

The patient was instructed to take 10 drops of the HcG under the tongue 5 times daily. He was limited to a total daily energy (calorie) intake of 500 cal for the first 30 days of the program while on the HcG. After the first 30 days, he reported back in for follow-up to perform laboratory testing, as well as to measure his weight and calculate his BMI. During this follow-up visit, his weight had decreased to 250 lb (BMI 33); and his waist circumference dropped from 44" to 42". His cardiovascular risk factors improved as follows: glucose, 79 (109); triglycerides, 106 (217); cholesterol, 162 (259); and LDL, 108 (171). Of note, his high-density lipoprotein also dropped to 33 from 45 initially. His disability rating improved to 10%, whereas his pain score was reduced to 23 on the quadruple numerical pain rating scale. No manipulation was administered during the entire duration of this weight loss program.

After the first 30 days of the program, his caloric intake was increased to 1000 cal/d; and his only limitation was to avoid simple sugars and starch. He did not take the homeopathic HcG during this time. Over this interim 30-day period, he lost an additional 10 lb (BMI 32); and his blood pressure decreased to 107/61 mm Hg.

The third 30-day period was a repeat of the first 30-day period: 500 cal/d, adhering to the Simeons⁸ dietary guideline. Finally, the last 30-day period consisted of increased calorie intake to 1000 cal/d; and he could not eat any sugar or starch. At the end of this protocol, his laboratory studies were repeated, as well as his QNPRS and FRI, to evaluate any changes.

At the conclusion of the diet, the patient's QNPRS remained at a 23, whereas his FRI improved to an 18% disability rating (7/40 score). His laboratory values continued to improve. His LDL, glucose, and total cholesterol were maintained, whereas his triglycerides dropped further to 95 (106). His weight had also further dropped to 210 lb (240), for a total weight loss of 71 lb in 4 months. This final weight dropped his BMI to 28 (32).

Discussion

The original hypothesis, according to Simeons,⁸ was that the HcG had a regulating effect on the hypothalamic-pituitary axis in terms of hunger control

and satiety. His hypothesis stemmed from treating juvenile boys with hypogonadism with HcG, which reversed the disorders and its visible signs, such as gynecomastia. However, the amount of HcG given to the hypogonadic boys was more than that given to weight loss patients.⁸

Testing of this weight loss protocol has been performed by other authors, and they nearly universally conclude that the Simeons protocol does not produce weight loss greater than patients taking a placebo.¹⁰⁻¹² However, Simeons has never directly stated in his writings that the HcG is directly responsible for the weight loss. Rather, it is a means of maintaining lean muscle mass (as evidenced by the reversal of hypogonadism) and reducing appetite, so that the weight that is lost is mainly fat loss.⁷⁻⁹ In the independent studies, the authors did not appear to determine what percentage of fat vs muscle was lost in patients receiving HcG compared with placebo. This is important because retaining lean muscle mass will aid in the long-term maintenance of weight loss through increased basal metabolism.

In addition, Simeons⁸ proposed that HcG helps the body to use nonstructural fat for energy, such as the fat external to the core abdominal sheath. He stated that this phenomenon similarly occurs during pregnancy. Because body composition testing has not been used in the literature, to our knowledge, as an outcome for HcG-based weight loss protocols, it is unknown whether this phenomenon does in fact occur in patients given extrinsic HcG.

The homeopathic HcG used in the present study is a highly diluted version of HcG and also contains many additional homeopathic ingredients purported to aid in appetite suppression and blood sugar metabolism. The patient reported no difficulties in taking this product and did state that he did not experience cravings or hunger pangs at any time during the entire program.

Because no placebo or controls were used, it is uncertain to what extent the HcG itself contributed to the weight loss in our patient. Furthermore, homeopathic HcG has not been tested in the biomedical literature to date; and our hope is that this report will spur more expanded studies on this form of HcG, especially for patients who have fears or trepidation of giving themselves injections at home.

It is unknown how the sublingual, homeopathic HcG compares to the injectable HcG because no study to date has compared the 2 kinds. It is possible that this patient may have lost more weight on the injectable version, given the higher concentration of HcG.

Furthermore, because body composition analysis was not used, it is also unknown as to the diet's effects on lean muscle mass and metabolism. This could have an important influence on the ability of this patient to maintain his weight loss. Future HcG studies should use body composition analysis to determine the actual amount of fat vs muscle loss over the diet period.

Limitations

There are numerous limitations to this study that should be discussed. The proprietary product used by this patient did not solely contain homeopathic HcG. It also contained other ingredients (*Asclepias vincetoxicum* 6X, 12X, 30X; *Echinacea* 6X, 12X, 30X; Hypothalamus 6X, 12X, 30X; Hepar Suis 8X; Methyl B12 8X; Renal Suis 8X; Gambogia 12X, 30X, 60X; Graphites 12X, 30X, 60X; Nux Vomica 12X, 30X, 60X; *Phytolacca decandra* 12X, 30X, 60X; 7-Keto DHEA 30X; ATP 30X; Glucagon 30X; Insulin 30X; Sarcrolacticum Acidum 30X; hCG 12C, 30C, 60C, 100C; Proteus Bach 30C).

Any one of these ingredients, or any combination of them, could be equally responsible for the observed weight loss as the HcG itself. Therefore, any future reports on sublingual HcG formulas should use products that contain exclusively the HcG dilution. In addition, as previously mentioned, measures of lean body mass should be taken to assess the effect of HcG products in causing fat loss instead of lean muscle loss. It is also difficult to assess which aspects of this protocol may have accounted for the observed weight loss: the calorie-restricted diet, the HcG dilution, or the other active ingredients in the product. A dietary intake of only 500 cal/d creates an environment wherein the hypothalamus triggers the release of nonessential fat stores to be converted into energy.⁸ The addition of the HcG allows for the maintenance of lean muscle mass,⁸ but this has not been tested for the homeopathic alternatives. It is possible, given the study design, that the 500-cal/d diet alone may account for the weight loss observed in this patient. Other limitations include that these findings are not necessarily generalizable to other patients and that the long-term follow-up for this patient is not known.

Given the study design, it is unknown whether the weight loss occurred as a result of the HcG or was simply from the calorie restriction. However, the weight loss achieved in this study seemed to directly impact the patient's chronic low back pain and his

cardiovascular risk factors. Follow-up studies using this protocol should focus on using body composition analysis instead of frank weight loss to verify some of the core theories of HcG-based weight loss.

Conclusion

This study reported the results of a patient undergoing a weight loss program based upon the Simeon⁸ principles using a combination homeopathic HcG product. The patient lost a total of 71 lb (final BMI of 28) at the conclusion of the program and improved his cardiovascular risk factors. For this patient, the final BMI of 28 takes him out of the "obesity" range for BMI (>30), which is important for long-term cardiovascular health.

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No funding sources or conflicts of interest were reported for this study.

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