HCG Injections in a Randomized, Double-Blinded, Placebo-Controlled Trial  
Sheri L. Emma, MD

Abstract

Four week trials were conducted on a total of 59 females between the ages of 20 and 55, with no major medical illness. They were placed on a 500 calorie diet (50% protein). Measured parameters: weight, body composition via bioimpedance, blood pressure, and blood labs were performed. Subjects received daily hCG or saline (placebo) subcutaneous injections. After 4 weeks, the subjects body compositions were analyzed for overall change. There was significantly more muscle lost in the placebo group versus the HCG group. Overall weight loss was similar between the two groups. This lends support to the theory that HCG is acting to preserve lean body mass during a calorie deprived state.

Materials & Methods

59 females were randomized to HCG or Placebo Study Groups. All subjects were between the ages of 20 and 55, with no major medical conditions. Recorded variables: weight, body composition, blood pressure, blood labs (CBC, complete metabolic panel, thyroid panel, hormones, and B-HCG), and in some patients, EKG. All were placed on a 500 calorie diet (approximately 50% protein) and were instructed to keep a diary of progress, hunger, and a food log. Subjects were randomized to HCG or placebo (saline) and injected between 200 and 300 IU subcutaneously daily for 4 weeks. Weekly follow-up visits were required during which patients received repeat weight, blood pressure, and medical evaluation. Blood tests were conducted every 2 weeks for electrolyte, hormone, and lipid monitoring.

Of the subjects, there were 30 HCG and 29 Placebo. Six subjects dropped out in each group. In the placebo group, five were noncompliant and one had a starting BMI less than 25, and thus were eliminated from analysis. In the HCG group, three were noncompliant (weight loss less than 5 lbs or extreme outlier (1) and one had a starting BMI less than 25, and thus were eliminated from analysis.

Median weight loss achieved in each group was 14 pounds. The mean was 14 pounds in HCG and 15 pounds in placebo. Median fat loss was 11 pounds in HCG, 9.2 in placebo Median muscle loss was 3.2 in HCG and 4.8 in placebo. The means were 2.7 and 5.4, respectively.

HCG vs. PLACEBO RESULTS:

<table>
<thead>
<tr>
<th>Change in Weight, 4 wks, Completers &amp; lost at least 5 lbs</th>
<th>Change in Fat Mass, 4 wks, Completers lost at least 5 lbs of overall weight</th>
<th>Change in Muscle Mass, 4 wks, Completers lost at least 5 lbs of overall weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Weight, 4 wks, Completers &amp; lost at least 5 lbs</td>
<td>Change in Fat Mass, 4 wks, Completers lost at least 5 lbs of overall weight</td>
<td>Change in Muscle Mass, 4 wks, Completers lost at least 5 lbs of overall weight</td>
</tr>
<tr>
<td>Group 1: HCG</td>
<td>Group 2: Placebo</td>
<td>Group 1: HCG</td>
</tr>
</tbody>
</table>

Discussion

HCG has been questioned as a weight loss aid due to the numerous dated studies that showed HCG had no impact on overall weight loss than placebo. To that we are in agreement. HCG demonstrates no significant stimulant properties or weight loss beyond diet alone. Rather it is a tool for creating a stable environment in the body during a VLCD to prevent the sarcopenia that occurs with use of such a diet. This muscle preservation is favorable due to maintenance of metabolism and physique, and therefore should be reconsidered as an aid to rapid weight loss methods.

Conclusions

HCG has been questioned as a weight loss aid due to the numerous dated studies that showed HCG had no impact on overall weight loss than placebo. To that we are in agreement. HCG demonstrates no significant stimulant properties or weight loss beyond diet alone. Rather it is a tool for creating a stable environment in the body during a VLCD to prevent the sarcopenia that occurs with use of such a diet. This muscle preservation is favorable due to maintenance of metabolism and physique, and therefore should be reconsidered as an aid to rapid weight loss methods.

References