

Garcinia cambogia for Weight Loss

To the Editor: In their study evaluating the weight-loss potential of (–)hydroxycitric acid (HCA) derived from *Garcinia cambogia*, Dr. Heymsfield and colleagues¹ cite our HCA work. We wish to give a counterpoint to the conclusion expressed by the authors.

Based on their single clinical study, Heymsfield et al state that “These observations ... do not support a role as currently prescribed for the widely used herb *G. cambogia* as a facilitator of weight loss.” Aside from this strong statement, which contradicts the positive results reported in several earlier HCA clinical studies, the design of the trial indicates that the authors took little advantage of previously reported experiences involving HCA.²⁻⁴ In their own preclinical research, they report a prerequisite that suggests for HCA to effectively inhibit fat formation and body weight it needs to be administered with a simple carbohydrate-rich (lipogenic) diet.⁵

The study in question⁵ coadministered HCA with a high-fiber diet. This issue of a carbohydrate-rich diet vs a high-fiber diet was not mentioned by Heymsfield et al. Also lacking was mention of the fact that a high-fiber diet was not advocated in our previous HCA trials.²⁻⁴

The use of a high-fiber diet in combination with HCA may reduce gastrointestinal absorption of HCA, since high-fiber diets may reduce absorption of many nutrients and micronutrients. This issue becomes critical with HCA because its reported efficacy in inhibiting the intracellular enzyme adenosine triphosphate(ATP)–citrate-lyase depends entirely on the presence of HCA inside the target cell.

The significance of HCA availability in the cytosol of a target cell for inhibiting lipid synthesis or

ATP–citrate-lyase was recently confirmed in 2 separate studies performed by Joanne Kelleher, PhD, at George Washington University (oral communication, November 24, 1998) and Joel Melnick, MD, at Northwestern University Medical School.⁶ The compound used in both of these studies was the same commercially available HCA used in the study by Heymsfield et al.

In view of the shortcomings of the study discussed above, the statement on HCA’s lack of efficacy is unsupported, particularly in the absence of proof that HCA was absorbed from the gastrointestinal tract.

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Disclosure. Sabinsa Corporation is a manufacturer of hydroxycitric acid.

1. Heymsfield SB, Allison DB, Vasselli JR, Pietrobelli A, Greenfield D, Nunez C. *Garcinia cambogia* (hydroxycitric acid) as a potential antiobesity agent: a randomized controlled trial. JAMA. 1998;280:1596-1600.

2. Conte AA. A non-prescription alternative in weight reduction therapy. Am J Bariatr Med. Summer 1993:17-19.

3. Conte AA. The effects of (–)-hydroxycitrate and chromium (GTF) on obesity. J Am Coll Nutr. 1994;13:535. Abstract 60.

4. Badmaev V, Majeed M. Open field, physician controlled, clinical evaluation of botanical weight loss formula Citrin. Presented at: Nutracon 1995: Nutraceuticals, Dietary Supplements and Functional Foods; July 11, 1995; Las Vegas, Nev.

5. Vasselli JR, Shane E, Boozer CN, Heymsfield SB. *Garcinia cambogia* extract inhibits body weight gain via increased energy expenditure (EE) in rats. FASEB J. 1998;12:A506.

6. Puttaparthi K, Rogers T, Elshourbagy NA, Levi M, Melnick JZ. Renal ATP citrate lyase (ATP CL) protein localizes throughout the nephron and increases only in the proximal tubule with chronic metabolic acidosis (CMA). Abstract presented at Pediatric Academic Societies’ 1999 Annual Meeting. May 2, 1999; San Francisco, Calif.