Evaluation of Natural Product Compositions for Appetite Suppression

Abstract

A change in homeostasis between food intake and energy expenditure is the hallmark of obesity. Many plant-based weight-management products are available in dietary supplement markets with no direct efficacy comparison. In this in vivo acute feed intake study in rats, the appetite suppression efficacy of well-known natural ingredients in the weight-loss market were evaluated.

We tested pure caffeine, potato skin extract, Cissus quadrangularis extract, Garcinia cambogia extract, Crocus sativus extract, raspberry ketone isolated from Rubus idaeus, one commercial product (Appetrex), and one novel composition (UP601). Rats treated with potato skin extract, Crocus sativus bulb extract, and Cissus quadrangularis extracts showed statistically significant reduction in food consumption only at the 2-hour timepoint with 44.9%, 34.1%, and 44.3% reductions, respectively, after food provision at an equivalent human dosage of 2 g, 10 g, and 10 g, respectively. Garcinia cambogia fruit extract and raspberry ketone from Rubus idaeus showed statistically significant reduction in food consumption only at the 1-hour timepoint with 33.7% and 79.4% reductions, respectively, after food provision at an equivalent human dosage of 8 g and 5 g, respectively.

UP601 and Appetrex were compared at 230 mg/kg. While 88.5%, 73.8%, and 63.1% reductions in food intake were observed for the UP601 treatment group, 64.2%, 27.5%, and 34.7% reductions in food intake were observed for rats treated with Appetrex at 1 h, 2 h, and 4 h after food provision. The composition UP601 demonstrated superior activity in food intake compared to any of the dietary supplements marketed for appetite suppression tested in this study.

01/10/2019 - A cura della Dott.sa Valeria Lagattolla