PLAQHV data:

Results:

The hunger baseline values were not significantly different between conditions (62.7±5.6 mm and 69.9±5.8 mm for PLC and HCSQ respectively; P = 0.25). **Changes of hunger from baseline is lower after the HCQS condition 50-60 minutes after administration in comparison to the PLC (5.6±3.1 mm and -6.7±4.2 mm for PLC and HCSQ respectively, P = 0.044).** After the milkshake, hunger sensations drop significantly for both conditions (P = 0.0006), but this is pattern is not different between conditions (P = 0.31).

The baseline values of the prospective food intake are not different between conditions (69.1±2.2 mm and 66.3±6.7 mm for PLC and HCQS respectively; P = 0.97). The change of prospective food intake from baseline was not different between conditions 50-60 min after the infusion (-5.2±4.2 mm and -5.0±2.6 mm for PLC and HCQS respectively; P = 0.97). After feeding, like the hunger sensations there is a drop for both conditions (P = 0.0008), though no difference between conditions was found (P = 0.17).

Satiety baseline was not different between conditions (19.2±6.6 mm and 11.7±7.4 mm for PLC and HCQS respectively; P = 0.14). Although delta satiety values are increased 50-60 minutes after the HCQS condition compared to PLC, this effect was not significantly different (-1.8±1.7 mm and 5.4±5.8 mm for PLC and HCQS respectively; P = 0.13). Satiation sensations increased severely after the milkshake consumption for both conditions (P = 0.002), and there is a tendency that the volunteer generally copes with higher satiation sensations after the milkshake compared to the PLC (P = 0.07), but the satiation progression is not affected by condition (P = 0.54).

Glucose from whole blood showed no difference between conditions at baseline (67.8±4.5 mg/dL and 65.6±7.4 mg/dL for PLC and HCQS respectively; P = 1.00). One hour after administration during the fasted state, the blood glucose levels increase slightly compared to baseline, though the increase is not different between conditions (17.4±2.9 mg/dL and 8.1±3.7 mg/dL for PLC and HCQS respectively; P = 0.32). Thirty minutes after the feeding, blood glucose values increase further, but not differently between conditions (33.6±5.2 mg/dL and 28.0±7.3 mg/dL for PLC and HCQS respectively; P = 0.54).

Insulin plasma values at baseline were not more often lower for PLC compared to HCQS (0.3±1.0 pmol/L and 2.2±1.1 pmol/L for PLC and HCQS respectively; P = 0.95; Wilcoxon-test). These values stayed low during the fasted state and differ little from baseline after 50-60 minutes (-0.5±0.4 pmol/L and -0.7±0.3 pmol/L for PLC and HCQS respectively; P = 0.71). After the chocolate milkshake, insulin plasma levels increased 31.5±5.9 pmol/L for PLC and 27.8±4.3 pmol/L for HCQS, however this was not different from one another (P = 0.63).

Baseline motilin plasma values were not different (886.5±30.4 pg/mL and 844.6±26.9 pg/mL for PLC and HCQS respectively; P = 0.81). Motilin plasma values from baseline were not different between conditions according to the a priori hypothesis (-0.2±22.1 pg/mL and -4.7±20.3 pg/mL for PLC and HCQS respectively; P = 0.77). There was not difference between conditions in the fed state (3.9±28.2 pg/mL and -11.0±30.6 pg/mL for PLC and HCQS respectively; P = 0.73).

Acyl-ghrelin baseline values were not different (171.0±13.2 pg/mL and 178.3±14.2 pg/mL for PLC and HCQS respectively; P = 0.71). Fifty to sixty minutes after infusion, delta acyl-ghrelin plasma values were lower compared to the PLC values, however this did not reach significance (9.4±6.6 pg/mL and -7.0±5.5 pg/mL for PLC and HCQS respectively; P = 0.11). After food intake, acyl ghrelin values strongly decrease compared to baseline values, however this drop is not different between conditions (-70.2±18.4 pg/mL and -92.3±12.1 pg/mL for PLC and HCQS respectively; P = 0.34).