

Metabolic and vascular effect of a new standardized bergamot phytocomplex: a three-arm, placebo controlled, double-blind clinical trial

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INTRODUCTION

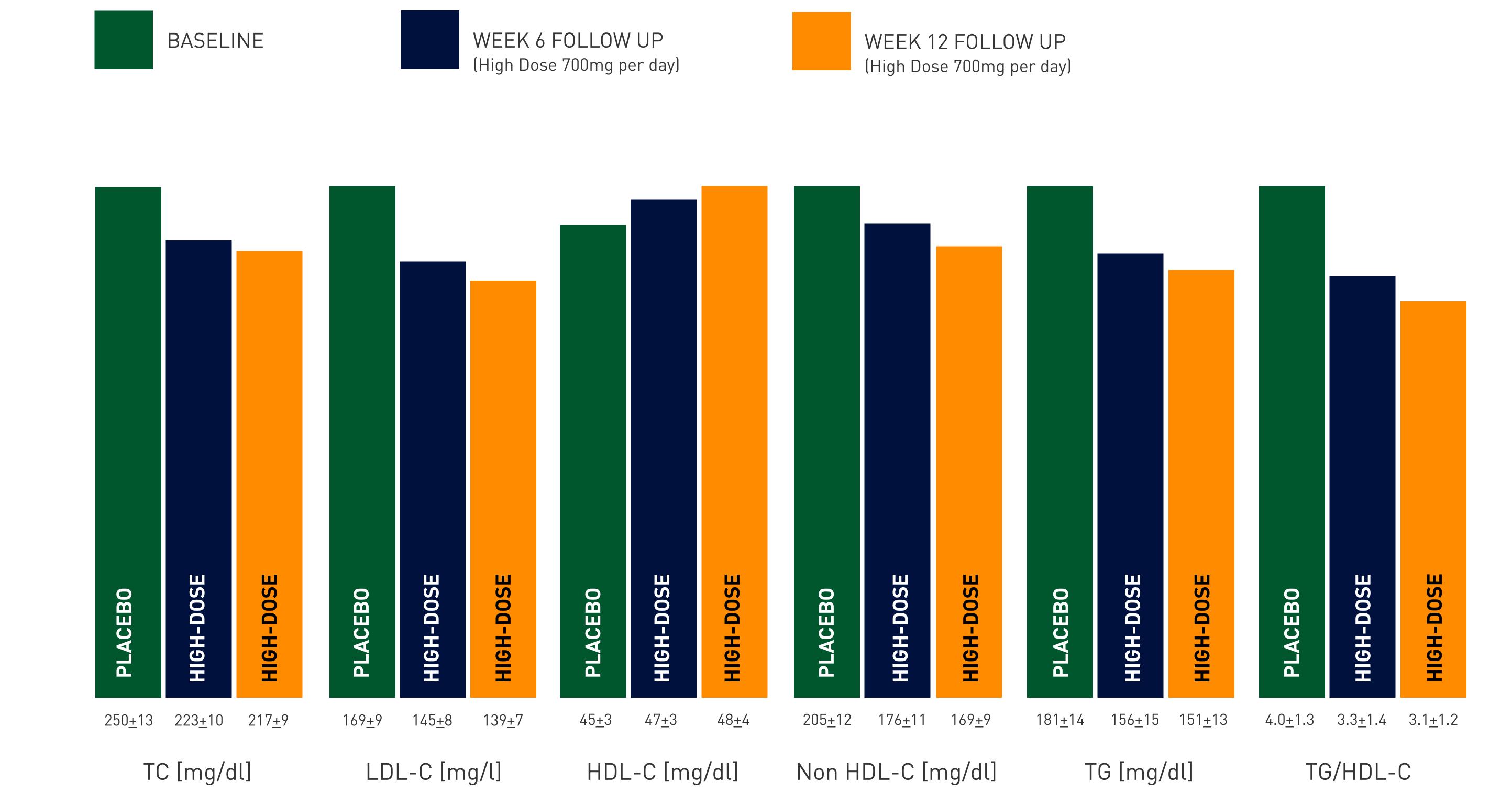
In addition to healthy lifestyle and balanced diet, nutraceuticals supplementation may be useful to maintain overall metabolic wellness. The aim of the current study was to assess the metabolic and vascular effects of a new highly standardized bergamot phytocomplex supplementation in healthy volunteers with the features of the metabolic syndrome.

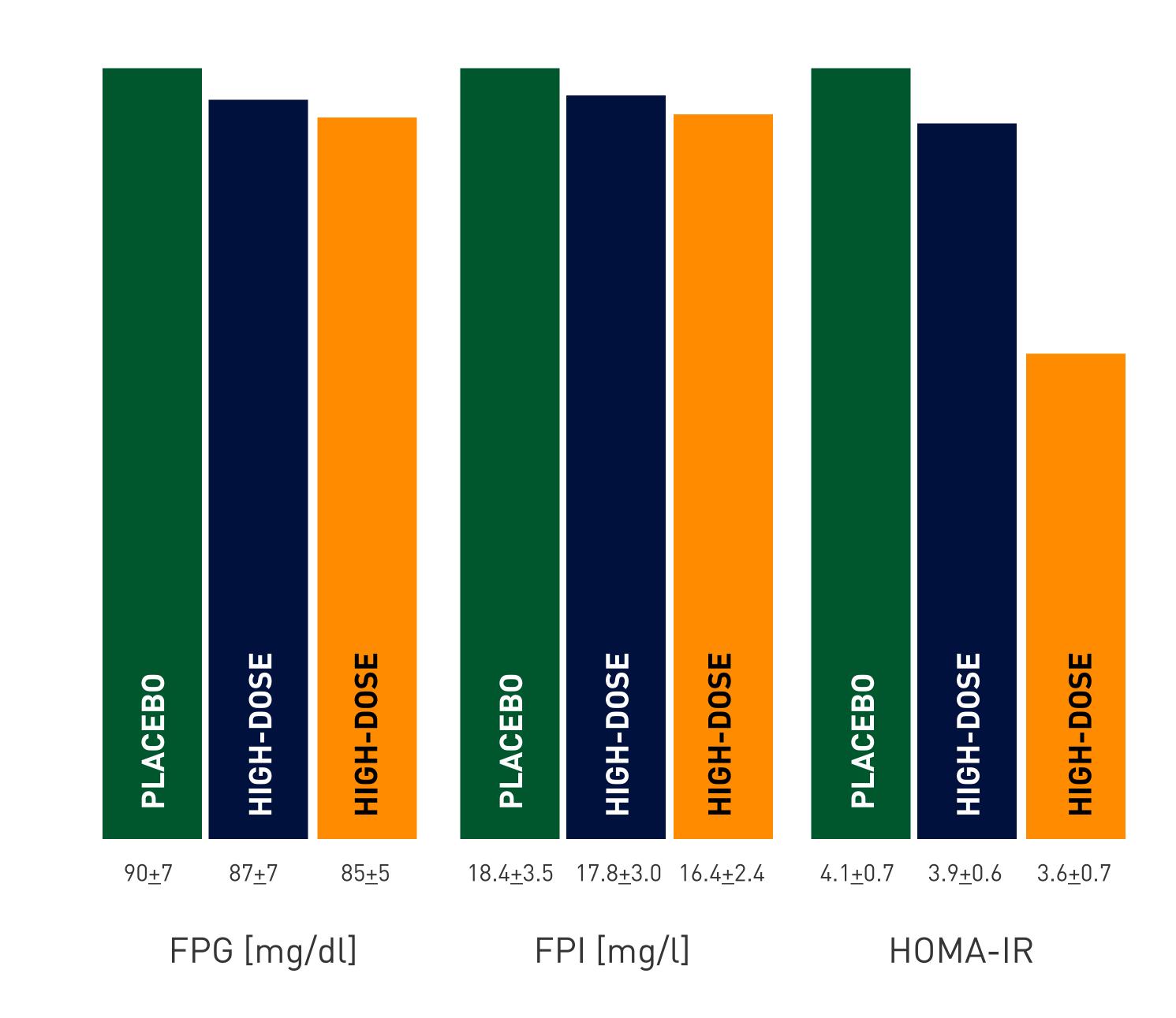
MATERIALS AND METHODS

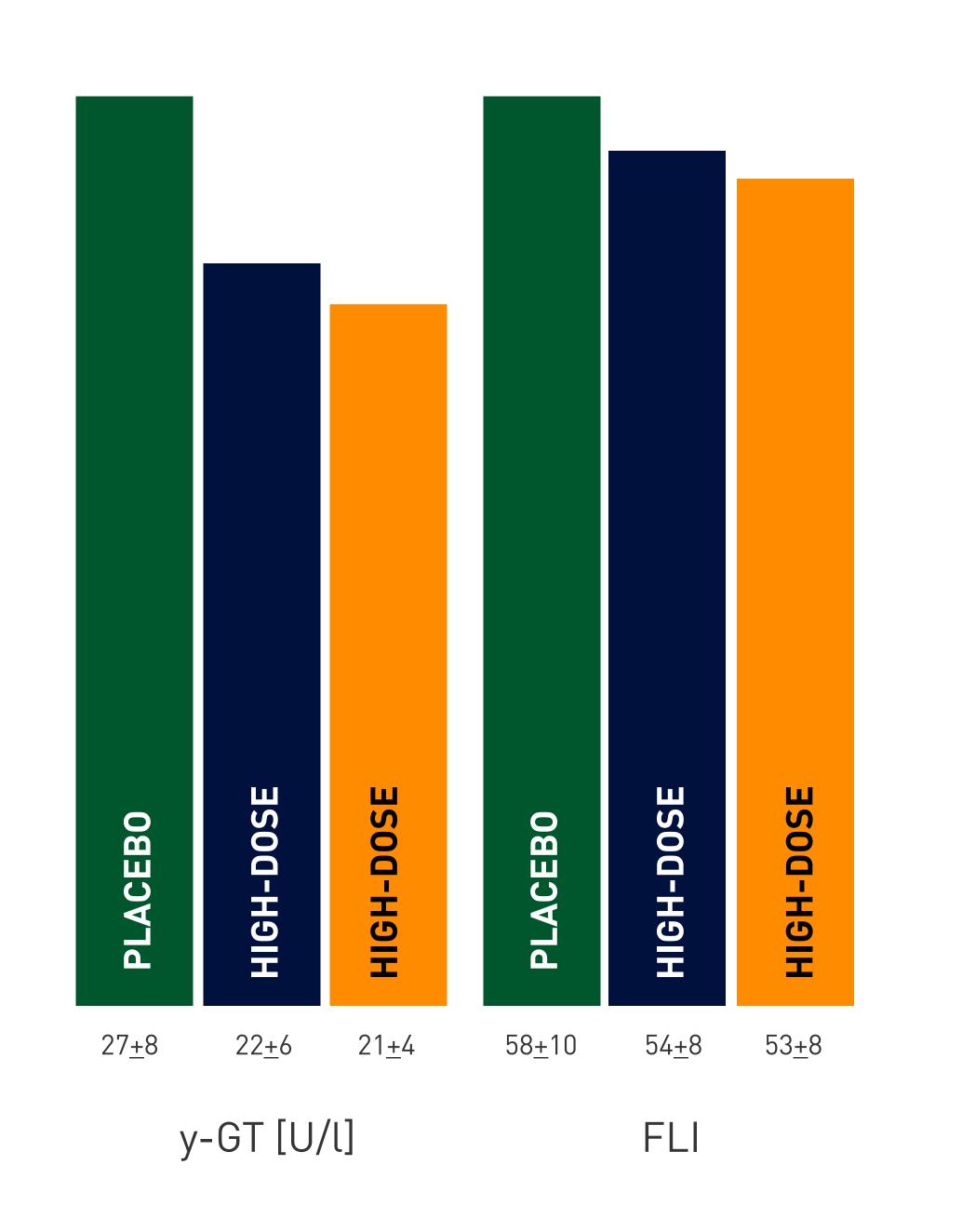
We carried out a double-blind, randomized, placebo-controlled, three-arm, parallel-group clinical trial in 90 adult subjects treated for 12 weeks with two different dosages of a highly standardized bergamot phytocomplex (Endoberg by AKHYNEX or placebo. Lipid plasma levels of lipids, glycaemia, plasma hs-CRP, HOMA-IR, body fat, endothelial reactivity and fatty liver index were assessed at baseline, after 6 weeks and at the end of treatment in all subjects.

RESULTS

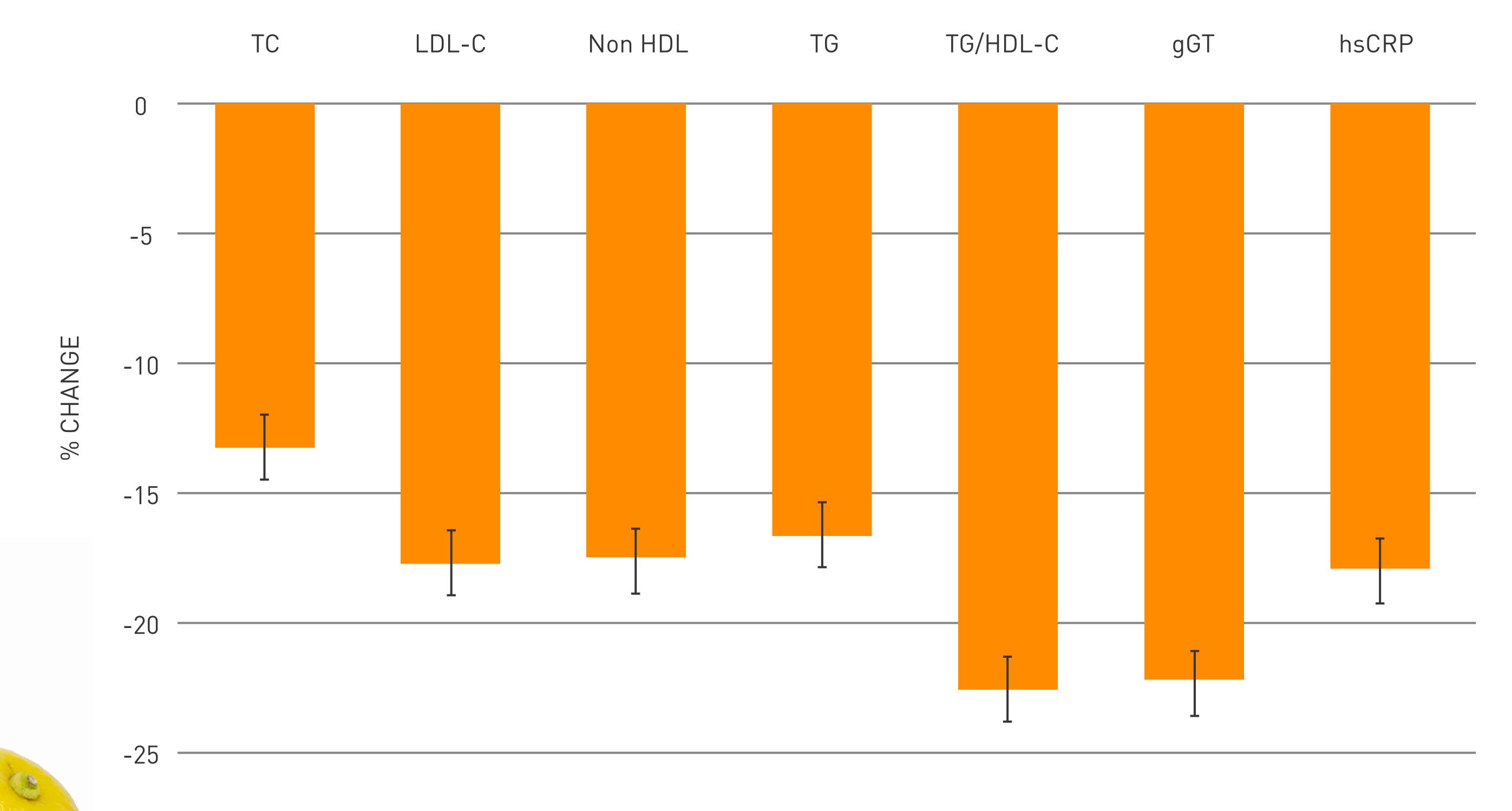
At the end of treatment, both tested bergamot extract doses were able to significantly improve atherogenic dyslipidaemia and insulin-sensitivity (p<0.05) compared to placebo. In the high-dose treated group, TC, LDL-C, non-HDL-C, and TG improved versus placebo (p<0.05) just after 6 weeks of treatment. After 12 weeks of treatment, TC decreased by 13.2±2.1%, LDL-C by 17.7±3.2%, Non-HDL-C by 17.5±3.1%, TG by 16.6±3.3%, TG/HDL-C by 22.5±4.4%, HOMA-IR by 12.2±2.1%, gGT by 22.2±4.6%, and hsCRP by 17.9±3.4% versus baseline (p<0.05) and vs. placebo (p<0.05). Percentage body fat and endothelial reactivity improved versus baseline, but not versus placebo, in the high-dose treatment only (p<0.05).







Metabolic effects of supplementation with full-dosed bergamot phytocomplex



CONCLUSION

The tested bergamot phytocomplex was able to significantly improve glucose and lipid metabolism, as well as inflammation and might represent a novel multitarget approach to control metabolic syndrome.

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