Objective: During menopause an increased incidence of cardiovascular diseases has been observed, in recent years a protective role has been attributed to natural antioxidants. Aim of this study, was to test the effect of a new supplement formula, combining cocoa polyphenols, myo-inositol and soy isoflavones, on some biomarkers of cardiovascular risk in postmenopausal women with metabolic syndrome.

Methods: A total of 60 postmenopausal women, diagnosed with metabolic syndrome, were enrolled. All women were advised to follow a low-energy diet, and then they were randomly assigned (n=30 in each group) to receive the supplement (30 mg of cocoa polyphenols, 80 mg of soy isoflavones, and 2 grams of myo-inositol) or placebo. The study protocol included three visits (baseline, 6 and 12 months) for the evaluation of serum glucose, triglycerides, and HDL-cholesterol (HDL-C), together with some adipokynes: adiponectin, visfatin, and resistin; and a marker of bone turnover: bone-specific alkaline phosphatase (bone-ALP).

Results: In the treated group a significant difference between 6 and 12 months was observed in serum glucose and triglycerides versus basal values (p<0.05). No difference in HDL-C concentrations between groups was reported. For bone-ALP and adiponectin was reported a significant difference (p<0.05) between groups at 12 months and also in the treated group, from 12 months to basal values. Also resistin and visfatin showed a significant difference (p<0.05) at 6 and 12 months versus basal values in the treated group.

Conclusions: The supplement used in this study, has shown to improve most of the biomarkers linked to metabolic syndrome, suggesting a possible reduction of CVD risk.