



Use of Gelatinized Maca (*Lepidium peruvianum*) in Early Postmenopausal Women: a Pilot Study

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ABSTRACT

Objective: This double-blind, placebo-corrected clinical pilot study was aimed at assessing the use of hypocotyls of cruciferous Andean plant Maca (*Lepidium peruvianum* Chacon), in alleviating symptoms of menopausal discomfort experienced by women in early post menopause as measured by profiles of serum hormones: Luteinizing Hormone (LH), Follicle-stimulating Hormone (FSH), Estrogen (E2) and Progesterone (PG) and as assessed by Greene's Menopausal Index.

Design: Study was conducted on 20 Caucasian healthy early-postmenopausal women volunteers during the three months period (Trial I) and on eight women during nine months period (Trial II). Hormone levels were determined in blood with a simultaneous assessment of menopausal index at the start of study, after one month use of placebo, and after two and eight months administration of 2g gelatinized Maca root powder (Maca-GO) in the form of two 500mg hard gel capsules, twice daily.

Results: In comparison to placebo, after both, two and eight months administration of Maca-GO capsules to EPMW, level of FSH significantly ($P<0.05$) decreased with a simultaneous significant ($P<0.05$) increase in the LH level, resulting in significant ($P<0.05$) increase in both E2 and PG, after eight months of Maca-GO treatment only. There was a significant (<0.05) placebo effect resulting in an elevated PG level after one month administration of placebo capsules. Changes in hormone levels was accompanied by substantially-reduced feeling of discomfort associated with menopause, although, there was a distinctive, positive placebo effect as judged by responses to Greene's questionnaire.

Conclusions: It is reasonable to suggest that Maca-GO when used in EPMW, depending on the length of use, was acting as a toner of hormonal processes as reflected by decrease in FSH and increased LH secretion, which stimulated production of both ovarian hormones, E2 and PG and resulted in a substantial reduction of menopausal discomfort felt by women participating in the study, with a distinctive placebo effect, thus, fully justifying further, more complex study on effectiveness of Maca-GO as a reliable alternative to HRT program.

Short title: Maca in Postmenopausal Women

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