Efficacia Dell’impiego Di Un Symbiotic Dietary Supplement (SDS) on Body Weight in Perimenopausal Women

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Introduction

Obesity is a major health concern in the western world, with more than one-third of adults estimated to be obese [1]. A trend to a progressive increase in body weight (BW) is often observed throughout the climacteric period associated not only with chronological age but also several other factors, including hormonal changes, menopause-related lifestyle changes, and type of menopause [1-5]. Different lines of evidence suggest that menopause per se is related to an increase in BW [6-12]. The issue of body weight has a great importance regarding the quality of life postmenopausal and perimenopausal women, and it has considerable impact on the health of PMW, including hypertension, cardiovascular disease, stroke, diabetes, hip fractures, cancer, premature death and disability when compared to PMW with a normal weight and normal body mass index (BMI) [6-12].

Evidence supports that the human gut microbiome is related to an increased BW obesity [13,14]. In this prospective study we evaluated the effects of a symbiotic dietary supplement (SDS) administration on body weight in perimenopausal women.

Materials and Methods

From women attending to the Menopause Clinic we selected untreated, normal healthy perimenopausal oligomenorrhoic women. Oligomenorrhea was defined as episodes of menstrual bleeding occurring at intervals of more than 35 and less than 90 days. All subjects had no history of diabetes, eating disorders, liver disease or other disorders known to influence calcium metabolism and none had received a glucocorticoid treatment. Women that were smoking 15 or more cigarettes a week exercised more than 6 h/week were excluded. Inclusion criteria included normal thyroid, adrenal, and renal function, as assessed by clinical, biochemical and hormonal evaluations. None had been treated with hormones in the 6 months before observation. Fifteen consecutive women received SDS (1 sachet a day) for 3 months and 15 untreated women were used as controls. Body weight was measured and the Body Mass Index (BMI) was calculated as weight (kilograms) divided by the square of the height (meters). All the results are reported as the Mean±SE [15].

Statistical Analysis

Mean values were compared by paired and unpaired Student’s t test.

Results

Table 1 reports the characteristics of the perimenopausal women. Five patients in the Control untreated group and 4 patients in the SDS group were lost at the follow up. There were no differences in age, height and cycle length in the two groups before entering the study. In control group, an increase in BW (not statistically significant; p value 0.051) from 62.6±4.1 to 63.4±4.3Kg was observed after 3 months). Similarly BMI in control group did not show any difference from basal values of 25.2±0.9 to 25.3±0.1 after 3 months.

Conversely, a statistically significant decrease in BW was recorded in SDS treated women from the basal values of 69,8±4.3Kg, to 68.6±3.5Kg after 3 months, with a two tailed P values of 0.05; the difference equals 1.17 with a 95% confidence interval from 0.001 to 2.344.

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Discussion

The results of this longitudinal, open study suggest that the administration of the SDS may counteract the increase in BW
observed in the perimenopausal period. SDS may help to maintain
or even lead to a small but statistically significant decrease in
BW in perimenopausal women. Present results suggest that the
climacteric, perimenopausal changes may interfere with gut
microbioma, since the SDS may help women in maintaining and
even reduce the BW. Further studies are needed to characterize
the effects of SDS on gut microbioma. In addition, present results
confirm the tendency to an increase in BW in perimenopausal
period, albeit the difference between basal and the three months
values did not reach statistical significance. The short period
of observation and the small group of women included in our
analysis may explain the borderline significant difference in BW
from baseline values.

Present study has certain limitations, due its observational
nature, and conducted in a small group of women. In addition
in our pilot study we did not evaluated the body fat distribution,
the independent risk factor for cardiovascular disease in
postmenopausal women. This aspect as well as other variables
such as lipid profile and blood pressure and glucose tolerance
warrant further studies. Longitudinal, randomized and properly
sized studies are needed in order to further evaluate the changes
in gut microbioma during perimenopausal transition and the
possible effects of SDS on BW.

References