

عنوان مقاله:

Effects of dietary approach to stop hypertension diet on androgens, antioxidant status, and body composition in overweight and obese women with polycystic ovary syndrome: A randomized controlled trial

محل انتشار:

هشتمین کنگره بین المللی و جشنواره دانشجویی طب تولید مثل و سومین کنگره بین المللی ژنتیک تولید مثل (سال: 1398)

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خلاصه مقاله:

Background: Polycystic ovary syndrome (PCOS) is the most common endocrine disease in reproductive age women. Objective: The present study aimed to determine the effects of Dietary Approaches to Stop Hypertension (DASH) diet on reproductive hormones, plasma total antioxidant status and anthropometric indices in overweight and obese PCOS women. Materials and Methods: In this randomized controlled clinical trial, 60 women with PCOS were randomly assigned to one of two diets with energy restriction: the DASH diet and a control diet. The DASH and control diets consisted of 50-55% carbohydrate, 15-20% protein and 25-30% total fat. The DASH diet was designed to be rich in vegetables, fruits, whole grains and low-fat dairy products, as well as low in saturated fats, cholesterol, refined grains and sweets. In the present study, the anthropometric indices, body composition, total testosterone, androstenedione, sex hormone binding globulin (SHBG), free androgen index and 2,2 -diphenyl-1-picrylhydrazyl (DPPH) scavenging activity were measured before and after 3 months. Results: The consumption of DASH diet compared to the control diet was associated with a significant reduction in weight [-5.78 (1.91) kg vs. -4.34 (2.87) kg, $p=0.032$], body mass index (BMI) [-2.29 (0.15) kg m⁻² vs. -1.69 (0.20) kg m⁻², $p=0.02$], fat mass [-3.23 (1.66) kg vs. -2.13 (1.26) kg, $p=0.008$] and serum androstenedione [-1.75 (1.39) ng mL⁻¹ vs. -1.02 (0.72) ng mL⁻¹, $p=0.019$]. Increased concentrations of SHBG [28.80 (21.71) versus 11.66 (18.82) nmol L⁻¹, $p=0.003$] and DPPH scavenging activity [30.23% (19.09) vs. 12.97% (25.12)] were also found in the DASH group. Conclusion: The DASH diet could improve weight loss, BMI and fat mass. Furthermore, it could results in a significant reduction in serum androstenedione and a significant increase in antioxidant status and SHBG.

کلمات کلیدی:

Polycystic ovary syndrome, Dietary approach to stop hypertension, Androgen, Oxidative stress, Randomized controlled trial

