

عنوان مقاله:

Effects of Curcumin on Body Weight Glycemic Control and Serum Lipids in Women with Polycystic Ovary Syndrome a
Randomized Double-Blind Placebo-Controlled Trial

محل انتشار:

پانزدهمین کنگره بین المللی زنان و مامایی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Backgrounds: The aim of this study was to evaluate the effect of curcumin on body weight, glycemic control and serum lipids in women suffering from polycystic ovary syndrome (PCOS). **Material and method :** The current randomized, double-blinded, placebo-controlled clinical trial was performed on 50 subjects with PCOS, aged 18-40 years old. Subjects were randomly allocated to take 500 mg/day curcumin (n=24) or placebo (n=26) for 12 weeks. Glycemic control and serum lipids were measured at baseline and after the 12-week intervention. Using RT-PCR method, gene expression related to insulin and lipid metabolism was evaluated. **Result:** Curcumin significantly decreased weight (-0.8 ± 0.9 vs. -0.2 ± 0.8 kg, $P=0.03$) and BMI (-0.3 ± 0.4 vs. -0.1 ± 0.3 kg/m², $P=0.03$). Curcumin, compared with the placebo, significantly reduced fasting glucose (β -2.63 mg/dL; 95% CI, -4.21, -1.05; $P=0.002$), serum insulin (β -1.16 μ U/mL; 95% CI, -2.12, -0.19; $P=0.02$), insulin resistance (β -0.26; 95% CI, -0.48, -0.03; $P=0.02$), and significantly increased insulin sensitivity (β 0.006; 95% CI, 0.001, 0.01; $P=0.02$). In addition, taking curcumin was associated with a significant reduction in total cholesterol (β -15.86 mg/dL; 95% CI, -24.48, -7.24; $P=0.001$), LDL-cholesterol (β -16.09 mg/dL; 95% CI, -25.11, -7.06; $P=0.001$) and total-/HDL-cholesterol ratio (β 0.62; 95% CI, -0.93, -0.30; $P<0.001$), and a significant increase in HDL-cholesterol levels (β 2.14 mg/dL; 95% CI, 0.36, 3.92; $P=0.01$) compared with the placebo. Additionally, curcumin administration up-regulated gene expression of peroxisome proliferator-activated receptor gamma (PPAR- γ) ($P=0.03$) and low-density lipoprotein receptor (LDLR) ($P<0.001$) compared with the placebo. **Conclusion:** Overall, curcumin administration for 12 weeks to women with PCOS had beneficial effects on body weight, glycemic control, serum lipids except triglycerides and VLDL-cholesterol levels, and gene expression of PPAR- γ and LDLR

کلمات کلیدی:

Curcumin, insulin metabolism, lipid profiles, polycystic ovary syndrome
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