

Effects of oral contraceptives on bone mineral density in Perimenopausal Women

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Objective : To evaluate the effects of oral contraceptives on bone mineral density (BMD), and bone turnover markers in perimenopausal women.

Material and methods : A total of 122 healthy perimenopausal women were retrospectively evaluated: 77 started oral contraceptives (OCs) and 45 were the control group. Changing patterns of the annual BMD in percentage of baseline were compared between two groups. And in the OC group, changes in bone turnover markers were analyzed.

Results : There were no differences in demographic profiles between two groups, except baseline BMDs. BMDs were lower in the OC group than in the control group. After 2 years, BMD at the lumbar spine and total hip showed increase in the OC group, whereas decreased in the control group. Since OCs increased BMD after 2 years at the total hip ($P < 0.05$) compared with control, the changes at the lumbar spine was not significant after adjusting for baseline BMD. In the OC group, bone turnover markers were significantly decreased after 6 months; At 6 months, bone-specific alkaline phosphatase (BSAP) decreased by 33.6%, and N-telopeptides (NTX) by 23.1%. There were no significant correlations between changes in bone turnover markers and response to OCs.

Conclusion : Oral contraceptives increases BMD at the hip, and decreases bone turnover markers in perimenopausal women.

Antiproliferative action of red ginseng extract in endometrial stromal cells and endometrial cancer cells

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Objective : The aim of this study was to investigate the effects of Korea red ginseng (KRG) extract on inflammatory response and proliferation in endometrial stromal cells (ESCs) and endometrial cancer cell line.

Method : ESCs were isolated and cultured from endometrial tissue of patients with fibroids undergoing hysterectomy. ECC-1 was used as endometrial cancer cell line. Cell proliferation was assessed after exposure to different concentrations of red ginseng extract. Apoptosis was assessed by flow cytometry.

Results : KRG extract decreased inhibited growth in ESCs in a dose-dependent manner. KRG extract also inhibited growth in a dose-dependent manner in ECC-1. KRG extract induced apoptosis in ECC-1.

Conclusion : We showed that KRG extract is a potent inhibitor of cell proliferation in ESCs and endometrial cancer cell line. These results suggest that KRG extract may have an antiproliferative effect on endometrium and KRG can be safely used in postmenopausal women.