

Correlation between DepotmedroxyprogesteroneAcetate(DMPA) Useand Bone Mineral Density in Reproductive Women Age

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Abstract:Background:Depomedroxyprogesteron acetate (DMPA) is the most popular contraception in the world. The used of this contraception can be caused osteoporotic. Objective this research was to compare the bone mineral density (BMD) of DMPA users and non-users, and its correlation with the length of use DMPA.

Methods: Cross-sectional study was done on 32 DMPA users and 31 non-users as control, who met the inclusion criteria, at Department of Obstetrics and Gynecology HasanSadikinGeneral Hospital, from January to December 2005. To be noted: age, height, weight, body mass index (BMI), marital age, parity, graduated marital status, and ethnicity. Analysis was done by chi-square test, t-test, exact Fisher test, Mann-Whitney test, and rank Spearman correlation analysis.

Results: Characteristics of DMPA users were: (28.8 ± 4.9) years, height (154 ± 4.8) cm, weight (51.2 ± 7.1) kg, body mass index (21.5 ± 2.7) kg/m², marital age (20.8 ± 3.8) years, parity >1 (96.87%), senior high school (56.25%), married (96.87%) and sundanese (100%), and on the control group were: age (32.8 ± 4.2) years, height (154.3 ± 5.1) cm, weight (53.4 ± 9.7) kg, BMI (22.4 ± 3.7) kg/m², marital age (23 ± 3.4) years, parity >1 (87.1%), senior high school (51.62%), married (93.55%), and sundanese (100%). The characteristics in both groups were homogeneous (p>0.05). The average of BMD in both group was significantly different (p<0.001), (1.025 ± 0.394) g/cm² versus (1,184 ± 0.0166) g/cm². The difference between each measured value was 0.159 g/cm². The mean length of DMPA use was (54.8 ± 33.8) months and its correlation with bone mineral density (BMD) was significantly different (p>0.05). The correlation between DMPA use and BMD was very significant (p<0.001) in the youngest group (20-24 years), but there was no significant correlation between body mass index (BMI) and BMD (p>0.05).

Conclusions: BMD in DMPA users is lower than that in non-users. There is no correlation between the length of DMPA use and the BMD.

Keywords: DMPA users, BMD, length of DMPA use.