عنوان الوثيقة: الكثافة الكتابة العظمية وعلاقتها بالكتلة الجسدية اللينة والحالة التغذوية لفيتامين – د و هرمون الغدة جار درقية في النساء ما بعد انقطاع الطمث: دراسة تطلعية.

الموضوع: التغذية السريرية وأمراض الغدد الصماء.

لغة الوثيقة: الإنجليزية

## المستخلص-

Title: Relationship between bone mineral density, lean body mass, vitamin-D status and parathyroid hormone in postmenopausal women: a prospective study: MSM Ardawi, MH Qari, AA Rouzi, R. Radady and A. Maimany

Objective: To assess the relationship between bone mineral density (BMD) and lean body mass, vitamin D and parathyroid hormone (PTH) in Saudi postmenopausal women.

Design: A prospective Study.

Setting: Tertiary Referral University Hospital.

Subjects and Methods: A total of 790 Saudi postmenopausal women living in the Jeddah area were studied. Bone mass and lean body mass were measured by a dual-energy X-ray absorptiometry. Plasma 25-OH-D3 and intact-PTH were measured together with biochemical bone turnover markers including [formation: serum osteocalcin (OC), bone alkaline phospatase (BAP), and absorption: C-telopeptide fragment of type 1collagen (sCTx), and cross-linked N-telopeptide type 1 collagen (sNTx) and serum calcium, phosphate and magnesium. The relationship between bone mass and lean body mass and other variables were examined using univariate analysis by means of Chi-square test and multivariable analysis using multiple logistic regression. ANOVA was used to examine the differences among women according to quartiles of 25-OH-D3 values.

Results: Serum 25-OH-D3 correlated with all skeletal sites in women studied except for the spine (r=0.18-0.32; P<0.05) BMD at sites enriched in cortical bone were 0.3-0.8 SD lower in the women with the lowest vitamin-D quartile as compared with that in the highest quartile. After adjusting for intact-PTH, the magnitude of correlation between BMD and 25-OH-D3 remained significant. After controlling for lean body mass the magnitude of these correlations did not significantly change. After controlling for age and height, both lean body mass and intact-PTH contributed significantly to BMD variation at all skeletal sites examined. Adjusting for age, height, lean mass, PTH, 25-OH-D3 did not show any significant residual contribution to BMD variation.

Conclusions: Vitamin-D effects on BMD in postmenopausal women is largely mediated via variations of intact-PTH rather than that of lean body mass.

ردمد:

اسم الدورية: مدونات التغذية وهشاشة العظام

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العدد: 7

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## الباحثون:

المرتبة العلمية	نوع الباحث	اسم الباحث (انجليزي)	اسم الباحث	*
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