شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

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نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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بالرسالة صفحات لم ترد بالاصل

SOME BIOCHEMICAL MARKERS OF BONE TURN OVER IN PATIENTS WITH EARLY OSTEOPOROSIS

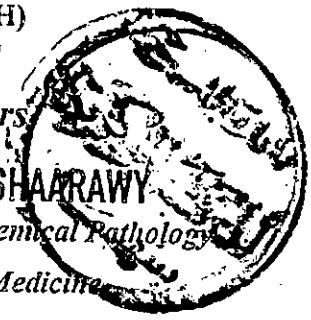
THESIS

Submitted In Partial Fulfillment for.M.Sc. Degree

In Clinical and Chemical Pathology

By

FATMA ABD EL- AAL ABO EL-WAFA
(M. B. B. CH)



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بسم الله الرحمن الرحيم

﴿قالوا سبحانك لا علم لنا إلا ما علمتنا انك أنت العليم الحكيم﴾

صدق الله
العظيم
"البقرة ٣٢"

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LIST OF ABBREVIATIONS

ALP	:	Alkaline phophatase.
;.ALP	:	Bone alkaline phophatase.
BGP	:	Bone Gla protein.
BMD	:	Bone mass density.
CLIA	:	Chemiluminescence immunoassay.
CVS	:	Coefficent variations.
Dpd	:	Deoxypyridinoline.
EIA	:	Enzyme immunoassay.
.'.PYR	:	Free pyidinoline
HPLC	:	High pressure liquid chromatography.
HRT	:	Hormone replacement therapy.
ICTP	:	Type 1 Carboxy terminal telopeptide.
NTX	:	Cross linked N-Telopeptide of type 1 collagen.
OC	:	Osteocalcin.
PICP	:	Propeptide of type 1 collagen carboxy terminal propeptide.
PMP	:	Post menopause.
PMT	:	Photo multiplier tube.
PTH	:	Para thyroid hormone.
Pyd	:	Pyridinoline.
RA	:	Rheumatoid arthritis.
S-BGP	:	Serum bone Gla protein.
SD	:	Standerd deviation.

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SOME BIOCHEMICAL MARKERS OF BONE TURN OVER IN PATIENTS WITH EARLY OSTEOPOROSIS

INTRODUCTION:

Measurement of the urinary excretion of the hydroxy pyridinium crosslinks of collagen, pyridinoline (pyrilinks, pyd) and deoxypyridinoline (pyrilinks-D,Dpd) may provide indices of bone resorption. These crosslinks reflect the degradation of mature collagen and not of any intermediate components. Pyrilinks-D (Dpd) is derived only from bone collagen but pyrilinks (Pyd) is also derived from collagen in a number of other tissues but not skin. For normal individuals values for Pyd are highly correlated with those for Dpd suggesting that bone is the major source of both crosslinks in urine ***(Robins et al., 1991).***

It is has been shown that the urinary excretions of both pyd and Dpd are significantly elevated in patients with disorders characterized by high rates of bone turnover ***(Robins et al., 1990).***

Excretion of the crosslinks was significantly higher ($P<0.01$ for Pyd, $p<0.001$ for Dpd) in patients with vertebral fractures (type I osteoporosis) than in age – matched controls ***(Mole et al., 1992)***.

In ***1998 Ross and knowlton*** reported that urinary creatinine-corrected free deoxypyridinoline (Pyrilinks- D, Dpd) and free pyridinolines (pyrilinks, Pyd) (the markers of bone resorption), are associated with rapid bone loss. This relationship appears to be continuous with progressively greater risk of rapid bone loss with increasing levels of biomarkers.