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شبكة المعلومات الجامعية
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شبكة المعلومات الجامعية

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التوثيق الالكتروني والميكروفيلم

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B7EVE

**Biochemical Evaluation Of The Role Of Ergocalciferol
(Vitamin D₂), Cholecalciferol (Vitamin D₃), Osteocalcin And
Parathyroid Hormone In Pathogenesis Of Liver Cirrhosis
In Egyptian Patients.**

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(B.Sc. in Biochemistry)

In Partial Fulfilment For The Degree Of
MASTER OF SCIENCE IN BIOCHEMISTRY

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THIS THESIS IS DEDICATED TO MY
BELOVED PARENTS, SISTERS, HUSBAND,
MY SON AND MY DAUGHTER WHOM I
HONOR AND CHERISH. THEIR
OVERWHELMING JOY UNDOUBTEDLY
GREATLY EXCEEDS MY OWN IN ATTAINING
MY M.SC DEGREE

TO THEM, I OWE EVERY THING

Ghada

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LIST OF ABBREVIATION

Abs	: Absorbance
ALT	: Alanine transaminase
anti-HBc	: Hepatitis B core antigen
AST	: Aspartate transaminase
ATP	: Adenosine triphosphate
BCG	: Bromo Cresol green
BGP	: Bone Gla Protein
BHT	: Butylated hydroxy toluene
BSA	: Buffer Sodium Azide
Ca ⁺⁺	: Calcium ion.
CAMP	: Cyclic adenosine monophosphate
CPM	: Count per minute
CT	: Calcitonin
DAGGG	: Donkey anti-goat-gamma globulin
DBP	: Vitamin D binding protein
Δ	: Delta
ECF	: Extracellular fluid
ELISA	: Enzyme linked immunosorbent Assay
GAR	: Goat-anti-rabbit serum
GFR	: Glomerular filtration rate
GLA	: Osteocalcin
Gtpase	: Guanosine Tri Phosphate
HBeA	: e antigen of Hepatitis B
HBsAB	: antibody to Hepatitis B surface antigen
HBsAg	: Hepatitis B surface antigen (anti-HBs)
HBV	: Hepatitis B virus
HCV	: Hepatitis C virus
HEV	: Hepatitis E virus
HIV	: Immune deficiency virus
HPLC	: High performance liquid chromatography
H ₂ O ₂	: Hydrogen Peroxide
H ₃ PO ₄	: Ortho Phosphoric acid
IgM	: Immunoglobulin M
IgG	: Immunoglobulin G
IPTH	: Immunoreactive parathyroid hormone
KOH	: Potassium hydroxide
LDH	: Lactate dehydrogenase
M	: Molarity

MB	: Maximum Binding
MDH	: Malate dehydrogenase
min	: Minutes
N	: Normality
NAD	: Nicotinamide adenine dinucleotide
NADP	: Nicotinamide adenine dinucleotide phosphate
NADPH	: Nicotinamide adenine dinucleotide phosphate hydrogen
NCX	: Negative Control Values
NSB	: Non specific binding
PEG -	: Polyethylene glycol
Ph ph	: Phenol phethaline
P-N	: Positive-Negative
P-NPP	: P-Nitrophenyl Phosphate
PTH	: Parathyroid hormone
PTT	: Pre-Precipitated
rDNA	: Ribosomal deoxyribonucleic acid
RIA	: Radio immuno assay
1,25(OH) ₂ D	: Vitamin D (1,25 dihydroxy-Cholecalciferol)
25-OH-D	: Vitamin D (25 hydroxy- Cholecalciferol)
UV	: Ultra violet

Biochemical Evaluation Of The Role Of Ergocalciferol (Vitamin D₂), Cholecalciferol (Vitamin D₃), Osteocalcin And Parathyroid Hormone In Pathogenesis Of Liver Cirrhosis In Egyptian Patients.

Ghada A. Abdallah

Abstract

In the present study we measured serum levels of osteocalcin, vitamin D₂, vitamin D₃, parathyroid hormone, calcium, phosphorus, albumin and total protein as well as liver function tests, in 60 cirrhotic men [subgroup (1): 20 patient of liver cirrhosis with hepatitis; subgroup (2): 20 patient of liver cirrhosis with bilharziasis; subgroup (3): 20 patient of liver cirrhosis with both hepatitis and bilharziasis] and 20 healthy controls. In all patient subgroups the mean serum level of vitamin D₂, vitamin D₃, osteocalcin, calcium, Phosphorus, albumin and total protein were significantly decreased; while the mean serum level of parathyroid hormone concentration was significantly increased. In conclusion, patients with liver cirrhosis usually associated with abnormality in calcium metabolism. Thus this disturbance seems to reflect diminished osteoblastic activity, which may also contribute to osteopenia.

Keywords: Liver Cirrhosis - Ergocalciferol - Cholecalciferol - Osteocalcin - Parathyroid Hormone - Calcium metabolism.

