Assessment of Vitamin D Status among Prediabetic Patients

Thesis

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In Endocrinology & Metabolism

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Randa Abd Elbaky

CONTENTS

List of Abbreviations

Abb.	Full term
25(OH)D	25 hydroxy Vitamin
2-hpG	2 hour post prandial glucose
ADA	American diabetes association
AIDS	Auto immune diseases
ATP	Adult treatment panel
AVC	Aortic valve closure
BMD	Bone mineral density
BMI	Body mass index
CCC	Coronary collateral circulation
CD	Crohn,s disease
CF	Cystic fibrosis
CHD	Coronary heart disease
CI	Confidence interval
CRP	C reactive protien
CTX	C-terminal peptide
CVD	Cardio vascular disease
DBP	Vitamin D Binding protien
DM	Diabetes millitus
DPP	DM preventing program
DV	Daily value
FBG	Fasting blood glucose
GC	Group specific component
GI	Glucose intolerance
GLP-1	Glucagon like peptide 1

Abb.	Full term
HBA1C	Glycated haemoglobin
HDL	High density lipoprotine
IDF	International DM fedration
IFG	Impaired fasting glucose
IGF-1	Insulin like growth factor
IGH	Impaired glucose homeostasis
IGT	Impaired glucose tolerance
IR	Insulin resistance
IRS-1	Insulin receptor substrate-1
IUS	International units
MED	Minimal erythema dose
MI	Myocardial infarction
MONICA	Monitoring trends and determinants in cardiovascular disease
MS	Multiple sclerosis
NCEP	National cholesterol education program
NGR	Normal glucose regulation
NTX	N-terminal xelopeptide
OGTT	Oral glucose tolerance test
PCOS	Poly cystic ovary syndrom
PTH	Parathyroid hormone
RA	Rheumatoid arthrities
RANKL	Receptor activator of NF KB ligand
RDAS	Recommended dietary allowances
RXR	Retinoid x receptor
SAD	Seasonal affective disorder

Abb.	Full term
SPF	Sun protection factor
TGF	Transforming growth factor
UVB	Ultravilot B
VDR	Vitamin D receptor
VDRE	Vitamin D response elements
WHO	World health organization

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Assessment of Vitamin D Status among Prediabetic Patients

Abstract

Background: Diabetes mellitus (DM) is a rising public health problem and a common chronic metabolic disease worldwide**.** It represents a group of metabolic diseases that are characterised by hyperglycaemia due to an absolute or relative deficiency of insulin release and insulin resistance or both. Diabetes mellitus is considered a leading cause of mortality due to its microvascular and macrovascular drawbacks. Resistance to insulin mediated glucose uptake plays a major part in the development and clinical dilemma of cases with type 2 DM. **Aim:** The aim of this study was to evaluate vitamin D status in pre-diabetic in cases with impaired glucose tolerance and impaired fasting. **Subjects:** This is a Cross sectional study that was conducted on 80 cases that included and divided into four groups. Prediabetic group of 40 consecutive patients (with IFG and IGT), 20 cases type 2 DM and the healthy group of 20 control cases. **Results:** The study was significant -ve correlation between vitamin D and BMI in group 2 (IFG) (r= -0.461 and p=0.041), systolic blood pressure among cases with IGT (r= -0.577 and p=0.008), and Albumin among group 2 (IFG) (r= -0.606 and p= 0.005). There was a statistically significant difference among the groups as regards the BMI, systolic and diastolic BP, mean fasting blood glucose and HOMA (P< 0.01).

Keywords: DM: Diabetes mellitus, Vitamin D, IFG: Impaired fasting glucose, IGT: Impaired glucose tolerance, BMI: Body mass index.

Introduction

Aim of the Study

Vitamin D

Prediabetes