Global Journal of Medical Research: F
Diseases
Volume 22 Issue 8 Version 1.0 Year 2022
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-4618 & Print ISSN: 0975-5888

Healthy Lifestyles in Patients with Type 2 Diabetes Mellitus and Alteration Genetic Compatible with Ctp-Ii According to Clinical Evidence

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Introduction- Diabetes mellitus (DM) is a chronic metabolic disorder characterized by persistent hyperglycemia. It may be due to impaired insulin secretion, resistance to peripheral actions of insulin, or both. According to the International Diabetes Federation (IDF) [1]

Carnitine palmitoyltransferase (CPT) catalyzes the transfer of long- and medium-chain fatty acids from cytoplasm into mitochondria, where oxidation of fatty acids takes place. Deficiency of CPT enzyme is associated with rare diseases of fatty acid metabolism. CPT is present in two subforms: CPT I at the outer mitochondrial membrane and carnitine palmitoyltransferase II (CPT II) inside the mitochondria. Deficiency of CPT II results in the most common inherited disorder of long-chain fatty acid oxidation affecting skeletal muscle. [2]

GJMR-F Classification: DDC Code: 574.192 LCC Code: QP514.2

Strictly as per the compliance and regulations of:

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Estilos De Vida Saludables En Pacientes Con Diabetes Mellitus Tipo 2 Y Alteración Genética Compatible Con Ctp-Ii Según Evidencia Clínica

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Introduction

Diabetes mellitus (DM) is a chronic metabolic disorder characterized by persistent hyperglycemia. It may be due to impaired insulin secretion, resistance to peripheral actions of insulin, or both. According to the International Diabetes Federation (IDF) [1]

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Obesity and type 2 diabetes are caused by a combination of poor diet quality, high caloric intake, and physical inactivity. The skeletal muscle accounts for 50% of total energy expenditure (EE), and because it is highly bioenergetically demanding and insulinresponsive, it greatly affects systemic metabolism in physiological and pathological scenario [3].

Carnitine palmitoyltransferase II (CPT II) deficiency is an important cause of recurrent rhabdomyolysis in children and adults. Current treatment includes dietary fat restriction, with increased carbohydrate intake and exercise restriction to avoid muscle pain and rhabdomyolysis [4]. The term "fats" designates a set of nutrients with great chemical heterogeneity, due to their different composition in fatty acids. Therefore, it is totally logical consider that its biological effect will vary depending on the type of fatty acid predominant in its molecule. All fats are insoluble in water and soluble in organic solvents, they are present in all cells (animal and plant) and most can be synthesized from carbohydrates [5].

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According to Khazrai and collaborators, there are many food plans available so that patients with DM2 can choose one based on their personal tastes and cultural traditions. It is important to provide a personalized diet when possible in order to increase its effectiveness in reducing diabetes symptoms and encouraging patient adhesion [6].

There is currently no specific etiological treatment. General recommendations include avoiding situations that can precipitate myoglobinuria, such as intense exercise, and a diet high in complex carbohydrates and low in fat can be useful to ensure glucose supply from liver glycogen stores [7].

A concise review of the available clinical evidence on this topic is carried out, where we can conclude that having multiple comorbidities leads to adjusting changes in healthy lifestyles, in this case of metabolic pathologies, the clinical evidence is clear about the advantages and good quality of life that is obtained by having an adequate adherence not only in the pharmacological treatment but also by a suitable diet, which must be individualized and given by a trained multidisciplinary team that allows reaching the goals and in turn avoiding complications.

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