Notes about Diabetes

Miranda Nava Gabriel

Neurologist and Clinical Neurophysiologist, Attached to the Hospital Center of the Presidential General Staff. Master in Public Health policies, México

*Corresponding author
Gabriel Miranda Nava, Neurologist and Clinical Neurophysiologist, Attached to the Hospital Center of the Presidencial General Staff, Master in Public Health policies, México, E-mail: drgabrielmiranda@hotmail.com

Introduction

Diabetes Mellitus (DM) comprises a heterogeneous group of chronic, systemic diseases of unknown cause, with varying degrees of hereditary predisposition and the participation of various environmental factors that affect the intermediate metabolism of carbohydrates, proteins and fats that they are physiopathologically associated with a deficiency in the quantity, chronology of secretion and / or in the action of insulin [1-10]. These defects result in an abnormal rise in blood glucose after standard glucose loads and even in fasting as there is greater decompensation of insulin secretion [11].

Diabetes is a disorder of metabolism, the process that converts the food we eat into energy. Insulin is the most important factor in this process. During digestion, food is broken down to create glucose, the largest source of fuel for the body. This glucose passes into the blood, where insulin allows it to enter the cells [12]. (Insulin is a hormone secreted by the pancreas, a large gland behind the stomach). In people with diabetes, one of two components of this system fails:

The pancreas does not produce, or produces little insulin (Type I); The body's cells do not respond to the insulin that is produced (Type 2)

DM includes a heterogeneous problem of pathologies, whose common characteristic is the elevation of blood glucose, caused by a defect (complete or not) in the synthesis, secretion and / or action of insulin [12]. The health importance of Diabetes derives from its magnitude, since it is the most frequent endocrine disease; of its transcendence, associated with increased morbidity and mortality; of its cost, individual and social, and its control possibilities; prevention of disease and its complications [13].

In Mexico, Type 2 DM (DM2) classified with in the so-called chronic degenerative diseases is one of the main causes of morbidity and mortality associated with the current economic and social model, with serious repercussions on lifestyle, whose indicators are observed in the diet, stress management and sedentary lifestyle, among others [14].

DM is a chronic disease with several implications in the daily life of people diagnosis with this disease [12]. Health professionals have a duty to monitor the control of diabetes to ensure that the effectiveness of the prescribed treatment reaches its potential. If the optimal treatment is used correctly by patients, they should achieve better glycemic control, which does not necessarily imply that there will be an increase in the patient's quality of life. Even so, any objective should be periodically evaluated to guide physicians to better target their interventions for the patient's best benefit. (Fifteen)

This condition currently affects more than 366 million people in the world and is expected to reach 540 million by 2025. Most cases occur in developing countries [15, 16].

The DM epidemic is recognized by the World Health Organization (WHO) as a global threat. In 2005, 1.1 million deaths due to diabetes were recorded, of which around 80% occurred in low- and middle-income countries, most of which are less prepared to face this epidemic [17].

According to information from the 2006 National Health and Nutrition Survey (ENSANUT), the prevalence increased to 14%, representing a total of 8 million people with diabetes; in the urban population, the prevalence was significantly higher [18].

In Mexico, the DM occupies the first place in the number of deaths per year, both in men and women mortality rates show an upward trend in both sexes with more than 70 thousand deaths and 400,000 new cases per year, it should be noted that according to the Directorate General Information on Health in 2007 had a higher number of deaths in the group of women (37,202 deaths) compared with that of men (33,310), with a rate of 69.2 per 100,000 inhabitants in women and 64 in men, differences important to consider in preventive actions, detection, diagnosis and treatment of this condition [19].

Diabetes is not a cardiovascular risk factor; it is an equivalent of cardiovascular disease because the risk of suffering a cardiovascular outcome is equal to that of ischemic heart disease [19].

Every hour 38 new cases of diabetes are diagnosed and every 5 hours die 5 people because of complications caused by this disease; of every 100 patients with diabetes, 14 have some kidney complication. 30% of diabetic foot problems end in amputation; of every five patients with diabetes, 2 develop blindness.

Mexico occupies the tenth place in global diabetes and it is estimated that by 2030 it will occupy the seventh position. The population in Mexico of people with diabetes fluctuates between 6.5 and 10 million (national prevalence of 10.1% in people between 20 and 79

years). Mexico occupies the tenth place of diabetes in the world and it is estimated that by 2030 it will have the seventh place [19-25].

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