

Severe Complications of Diabetes

Yuldosheva Roila Jumayevna

Assistant-teacher,

Department of Physiology, Faculty of Chemistry and Biology, Karshi State University tel: +998903427292

Abstract: Diabetes mellitus is a chronic metabolic disease that is characterized by an increase in blood glucose levels due to deficiencies in insulin exposure, insulin secretion, or both. Effective treatment of diabetes is critical, otherwise chronic uncontrolled diabetes can lead to late complications of diabetes, particularly neuropathy, retinopathy, cardiomyopathy, and nephropathy. Researches have shown that diabetes mellitus is one of the leading causes of risks worldwide.

Key words: diabetes, glucose, insulin, obesity, children and adults

Introduction

In clinical practice, therapeutic agents face several side effects, ineffectiveness in large populations, and problems with patient compliance, so new effective treatment modalities are most appropriate. In this regard, a natural product may be the best option because it has long been a therapeutic method. This review deals with glycosides derived from various plants that have antidiabetic effects; mediates through various mechanisms. Focusing on glycosides as anti-diabetic therapy may lead to the discovery of some new effective therapeutic agents. Obesity in children has become a national concern, a threat to health, and is growing at an alarming rate. Obesity is associated with many diseases that last until puberty. The number of obese children with insulin resistance syndrome is increasing (Cynthia S Yensel 1, 2004). Pediatric nurses play a unique and important role in determining which children are at risk for obesity and this syndrome. Diabetes is a disease that occurs when blood glucose levels are too high. Blood glucose is main source of energy and comes from the food you eat. The hormone insulin, produced by the pancreas, helps glucose from food enter your cells to get energy. Sometimes body does not produce enough other insulin or does not use insulin well. Then the glucose stays in blood and does not reach the cells.

Over time, too much glucose in the blood can lead to health problems. While there is no cure for diabetes, take steps to manage diabetes and maintain health.

Health problems associated with diabetes

Over time, high blood glucose leads to problems such as, heart disease, stroke, kidney disease, eye problems, dental disease, nerve damage, foot problems. Type 2 diabetes is a common condition that leads to an excessive rise in blood sugar (glucose) levels. This can lead to symptoms such as excessive thirst, excessive urination and fatigue. It can also increase risk of having serious problems with eyes, heart and nerves. This is a lifelong condition that can affect daily life. This is due to problems with a chemical (hormone) in the body called insulin. It is often associated with being overweight or inactive or having type 2 diabetes in the family.

Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. The chronic hyperglycemia of diabetes mellitus is associated with long-term damage, dysfunction, and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels. The management of this disease process is complicated. Good diabetic control depends on diligence in blood glucose monitoring, frequent adjustment of medications, adherence to a regular diet and exercise plan, and treatment of comorbid conditions such as hypertension and hyperlipidemia. Diabetes is a common, serious, expensive, and controlled disease. Current scientific evidence suggests that a greater proportion of diabetes-related morbidity and mortality is associated with better prevention, early detection, improved health care delivery, and diabetes self-management can be destroyed by lim (Richard A Guthrie 1, 2004). Unfortunately, there is still a big gap between current and desired diabetes treatments and practices. Using available tools, an occupational health nurse can provide this to employees with diabetes by providing a workplace that supports successful outcomes in diabetes management and control. The prevalence of type 2 diabetes among children and adolescents has increased

dramatically over the past 10 years. Type 2 diabetes is characterized by insulin resistance and high insulin levels. The reasons that exacerbate this condition in children and adolescents stem from obesity, as do sedentary behaviors, unhealthy food choices, and genetic predisposition. The high rate of recurrence in families suggests that the whole family needs to be involved for therapy to be successful for children and adolescents (Ganesh R Kokil 1, 2010). Treatment recommendations vary depending on severity, but include diet, exercise, and medication. Assessing the readiness of the patient and his or her family to change their current lifestyle behaviors is an integral part of treatment. Nutrition and exercise goals should be implemented individually to meet the patient's needs. The success of therapy is difficult to measure because this chronic disease is diagnosed in young people. As with any chronic condition, it is difficult to measure the success of therapy.

Optimal starvation and postprandial glycemic control are critical to limit the microvascular and macrovascular complications associated with diabetes. Strict control of hyperglycemia in hospitalized patients with severe diabetes or acute hyperglycemia has been shown to reduce the risk of mortality. The development of insulin analogues and pre-mixed insulin analogs has created new opportunities for the treatment of inpatients and outpatients. More physiological profiles of the time, improved insulin delivery systems, and standardized protocols for subcutaneous insulin delivery and intravenous delivery have increased the safety and convenience of insulin therapy (Moghissi, 2008). Childhood obesity is associated with hyperlipidemia, diabetes, hypertension, and atherosclerosis. Both genetic and environmental influences play an important role in the development of obesity. Prevention of childhood obesity is the best opportunity to make lifestyle changes to reduce cardiovascular disease and mortality. Children at high risk for obesity-related cardiovascular disease should receive individualized family-based treatment. Practitioner nurses in primary care facilities are in an ideal position to address children and families on dietary and exercise lifestyle changes (C Buiten 1, 2006).

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