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Данная статья посвящена изучению диабета как хронического заболевания, характеризующегося повышенным уровнем сахара в крови. В статье рассматриваются основные типы диабета, факторы риска, симптомы и осложнения заболевания. Также обсуждаются методы лечения и профилактики диабета, включая диету, физическую активность, медикаментозное лечение, самоконтроль и регулярные медицинские осмотры. Статья также обращает внимание на важность здорового образа жизни и контроля уровня глюкозы в крови для предотвращения развития диабета и его осложнений.

Ключевые слова: диабет, физическая активность, лечение, здоровый образ жизни.

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This article is devoted to the study of diabetes as a chronic disease characterized by elevated blood sugar levels. The article discusses the main types of diabetes, risk factors, symptoms and complications of the disease. Methods of diabetes treatment and prevention are also discussed, including diet, physical activity, medication, self-monitoring and regular medical checkups. The article also draws attention to the importance of a healthy lifestyle and blood glucose control to prevent the development of diabetes and its complications.

Keywords: diabetes, physical activity, treatment, healthy lifestyle.

The significance of the selected subject lies in the chronic and incurable nature of diabetes mellitus, as well as the possibility of preventing this condition. Diabetes mellitus can result in severe complications affecting the kidneys, eyes, heart, and blood vessels. Hence, the prevention, diagnosis, and treatment of this illness remain crucial priorities for the medical field.

The aim

To raise awareness about diabetes mellitus, encompassing its etiology, manifestations, diagnostic and therapeutic approaches, as well as preventive strategies.

Tasks:

1. Presenting fundamental facts regarding diabetes mellitus and its various types.
2. Elucidating the causes and risk factors associated with the disease.
3. Describing the primary symptoms and indications of diabetes mellitus.
4. Examining treatment modalities for diabetes mellitus, including dietary adjustments, physical exercise, pharmacotherapy, and insulin administration.
5. Discussing the significance of self-monitoring and self-management for individuals with diabetes mellitus.
6. Deliberating on preventive measures for diabetes mellitus, including adopting a healthy lifestyle, undergoing regular medical check-ups, and managing weight.

Definition of Diabetes Mellitus [1]

Diabetes is a persistent condition characterized by elevated blood glucose levels. This disorder arises from the body's inadequate response to insulin, a hormone responsible for regulating blood sugar levels. Diabetes is a prevalent and serious global health issue, believed to stem from a blend of genetic predisposition and lifestyle factors.

There exist several types of diabetes, with the primary forms being type 1 and type 2, which are the most frequently encountered. In type 1 diabetes, insufficient insulin is generated within the body, while in type 2 diabetes, insulin production is hindered by adipose tissue hormones. Type 1 diabetes is less prevalent compared to type 2 diabetes, which was previously prevalent only in adults but now affects children as well [3].

Key Risk Factors Include:

1. Viral Infections.
2. Overweight or Obesity.
3. Sedentary Lifestyle.
4. Pancreatic Disorders.
5. Genetic Predisposition.

Symptoms

The gradual onset of diabetes often results in subtle or nonspecific symptoms during the initial phase of the illness. However, as blood sugar levels escalate over time, the following symptoms may manifest [2]:

1. Frequent Urination: Elevated blood sugar levels prompt an increase in urine output, leading to frequent urination.
2. Constant Thirst: Dehydration due to excessive urination triggers persistent thirst.
3. Increased Appetite: Cellular inability to utilize sugar for energy results in heightened hunger.
4. Unexplained Weight Loss: Inability to utilize glucose for energy prompts the body to break down fat and muscle stores, causing weight loss.
5. Fatigue and Weakness: Cellular energy deficiency reduces activity levels and work capacity.
6. Delayed Wound Healing: Elevated blood sugar impedes the wound healing process.

Clinical Manifestations

As diabetes progresses, more severe complications may arise, including:

1. Diabetic Nephropathy: High blood sugar levels impair renal capillaries, potentially leading to chronic kidney failure.

2. Diabetic Retinopathy: Retinal damage can result in significant vision impairment or blindness.

3. Diabetic Neuropathy: Nervous system damage can cause pain, numbness, reduced sensitivity in extremities, and gastrointestinal issues.

4. Cardiovascular Complications: Elevated blood sugar elevates the risk of cardiovascular conditions like heart attacks, strokes, and atherosclerosis.

The treatment of diabetes aims to regulate blood sugar levels, prevent complications, and alleviate symptoms.

Conventional treatment adheres to the following principles [4]:

1. Dietary Management: Optimizing the diet involves moderating carbohydrate, fat, and protein intake, along with controlling food consumption to uphold stable blood sugar levels.

2. Physical Exercise: Engaging in moderate physical activity and regular exercise aids in lowering blood sugar levels and enhancing overall well-being.

3. Medication: In certain instances, oral medications or insulin injections may be necessary to manage blood sugar levels effectively.

4. Self-Monitoring: Routine monitoring of blood sugar levels using a glucose meter enables patients to assess treatment efficacy and make adjustments as needed.

5. Regular Medical Check-Ups: Periodic consultations with healthcare providers facilitate disease monitoring, timely identification of complications, and treatment adjustments.

Preventive Measures [2]:

1. Healthy Lifestyle Choices: Sustaining a healthy weight, engaging in regular physical activity, and adhering to a balanced diet.

2. Blood Glucose Surveillance: Regular monitoring of blood glucose levels aids in identifying prediabetic conditions and implementing preventive measures.

3. Abandoning Unhealthy Habits: Cessation of smoking and alcohol consumption.

In Conclusion, diabetes is a chronic condition necessitating continuous monitoring and control. Comprehensive comprehension of diabetes symptoms, clinical manifestations, and treatment modalities is pivotal in preserving health and averting complications. Regular consultations with healthcare professionals and adherence to medical guidance empower individuals with diabetes to lead active and fulfilling lives [5].

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