

Review Article

A REVIEW ON HYPERGLYCEMIA: SYMPTOMS AND RISK FACTORS

ABSTRACT:

Background: The term "hyperglycemia" is derived from the Greek hyper (top) + glykys (sugar / sugar) + haima (blood). marked extra sugar varies from one hundred and twenty-five mg / dL and is faster and more noticeable than one hundred and eighty mg / metric unit unit a couple of hours after meals. The patient has decreased resistance to aldohexose, or prediabetes, with rapid plasma aldohexose 100 mg / dL one hundred and twenty-five mg / dL. The patient is diagnosed with diabetes mellitus which is more noticeable than one hundred and twenty-five mg / metric dose units. As long as the symptom is not treated, it will create a variety of unsafe complications that include pain in the care, kidneys, nerves, heart and vascular structure.

Objectives: to define and define the number of children in the past to assess whether symptoms have been given or not and whether this is often associated with a PIM pair difficulty index.

Methods: Recurrent analysis, patients between one month and fifteen years The World Health Organization recognizes care for septic shock, between the month of the Gregorian calendar 2008 and Oct 2010. -aldohexose > 126 mg / dl. Patients were diagnosed according to age, gender, illness and glucose levels when treated, 24, forty-eight and seventy-two hrs.

Results: Out of 25 patients 16 PF had symptoms, one patient had a glucose level > 200 mg /dl, and only one patient needed a hypoglycemic agent, usually between seventy-two hours and admission.

Conclusions: The World Health Organization's gift of septic shock occurs at a lower rate, and people have developed the World Health Organization, a self-administered gift of traditional blood sugar levels of 72 hours while not requiring hypoglycemic agent administration. Patients with symptoms had a higher mortality rate of PIM pairs thus increasing mortality.

Keywords: Hyperglycaemia, Blood Glucose, Imbalance, Treatment,

INTRODUCTION

Hyperglycemia (high blood sugar) suggests that there is sugar level as body not have enough hypoglycemic agents. related to polygenic disease, the symptom will cause a thirst, hunger, rapid heartbeat and various symptoms. Untreated symptoms will lead to serious health problems. Hyperglycemia occurs when there is high blood sugar this happens when body has high hypoglycemic agents. (secretions that carry aldohexose into the bloodstream), or when your body is unable to use the hypoglycemic agent properly. This condition is often

Comment [RI1]: "Glykys" means sugar (not sugar/sugar)

Comment [RI2]: This is meant to be the beginning of a sentence. This word should be capitalized.

Comment [RI3]: Since 2006, the WHO has set the criterion for diabetes mellitus to be fasting blood glucose ≥ 7.0 mmol/l (126mg/dl). Kindly check the WHO website and reconcile.

Note that whether this is fasting hyperglycemia or not is not also stated.

Comment [RI4]: There is no need to space out the terms of the unit. It is only necessary to separate the entire unit from the figure.

Comment [RI5]: The expression of the value of blood glucose using this unit is STRANGE. Kindly check to be sure you haven't made mistake.

If it is correct, state the equivalence of this in the units that are widely known (like mg/dl or mmol/l).

Comment [RI6]: Looking at the sentence where this word is found, this is meant to be an organ. Perhaps there is a mistake in what is intended.

Comment [RI7]: NOT CLEAR

Comment [RI8]: NOT CLEAR

Comment [RI9]: NOT CLEAR

For his to be clear, the clarity of the objective and methods is very important.

Comment [RI10]: This is not clear and it appears to contain an indictment against WHO without any reliable evidence.

Comment [RI11]: This wasn't apparent in the result section. It appears like a baseless conclusion.

Comment [RI12]: I think these two key words are very weak in relation to the content of this manuscript and the proposed topic.

Comment [RI13]: This is wrong because it portends that an individual must have "hypoglycemic agents" in their system to be free from hyperglycemia.

I am doubting if the author understands what "hypoglycemic agents" are. The Author should check!

associated with polygenic disease(1). Hyperglycemia is glucose greater than one hundred and twenty-five mg/dL. Person has an allergy to aldohexose, or pre-diabetes, with rapid glucose 100 mg /dL to one hundred and twenty-five mg / dL.

A person develops symptoms when his or her glucose level is above one hundred and eighty mg /Dl after 1 to 2 hours of it. If you have symptoms and cannot be treated for long , it will damage nerves, muscles and organs. Injured blood vessels increase the risk of stroke , and it may also result in eye issues, urinary tract injuries(2) .

Risk for measuring the hyperglycemia?

The most dangerous features of the symptoms are:

He has a history of a case of polygenic disease.

He is an African yank, native yank, Hispanic yank or Asian.

She is fat.

You have high energy in each area

You have polycystic gonad syndrome (PCOS).

History of physiological state polygenic disease.

SYMPTOMS

Factors causing symptoms in diabetes?

The dosage of a hypoglycemic agent or polygenic medication takes lightly square measurement is not the most important dosage you want. Your body does not successfully deplete your natural hypoglycemic agent.

Amount of carbohydrates you use or drink is not the same as the amount of hypoglycemic agent your body is in.

- Working is slower than usual.
- Physical stress (fever, flu, associate degree infection, etc.)
- Emotional stress affects you.
- Dawn of dawn (an increase in the amount of hormones produced by the body every morning from about four in the morning to five in the morning) affects you.

Other possible problems

- Pancreatic diseases such as rubor, carcinoma and pancreatic Fibrosis.
- Various medications.
- Polygenic disease, occurs in four-dimensional pregnancies, also thanks to the reduced sensitivity of the hypoglycemic agent.

BIG BODY

High glucose (hyperglycemia) affects people with polygenic disease. Many factors lcontribute to hyperglycemia in people with genetic abnormalities , food and exercise preferences.

Comment [RI14]: An acronym is expected to align perfectly with what is abbreviated. PCOS doesn't align perfectly with what is being abbreviated. The fact that "polycystic ovarian syndrome" may also be referred to as "polycystic gonad syndrome" is not an excuse.

Comment [RI15]: No reference.

One would expect that since this is meant to be a review, the author(s) would review what is known in scientific literature and include citations as appropriate.

Even if the author(s) wish to make new additions (which must be backed with unequivocal research outputs) to the known risks, reviewing what is known in scientific literature is compulsory.

Comment [RI16]: Is "Factor causing symptom" not the same as "risk factor"?

I don't understand why the author is bringing that under symptom despite having a section for risk factor.

Treating symptoms is important if they are not treated, the symptoms will become more severe and cause serious problems that require urgent care, a state of fainting. Over the long term, a persistent symptom, without difficulty, will cause problems that affect eyes, kidneys, emotions and heart(3).

SYMPTOMS

Hyperglycemia has no symptoms until monosaccharide levels are very high - one hundred and eighty to one hundred milligrams per metric unit (mg / dL). Symptoms develop slowly over days or weeks. Longer the aldohexose levels remain high, the symptoms worsen. However, number of North American nationals who have had a genetic abnormality in Associate in Nursing for a long time I not show any symptoms despite high aldohexose levels.

Early symptoms

Recognizing symptoms earlier will help you to treat the disease faster.

- Regular checkups
- High thirst
- Blurred vision
- Fatigue

After Symptoms

If symptoms are not treated, they will cause anoxic acids to build up in blood and piddle

Signs and symptoms include:

- Fruit-smelling breath
- Natural reflex
- Breath shortness
- Dryness in mouth
- Weaknesses
- Coma
- Abdominal pain

Aldohexose levels at 240 mg / dL () and get ketones in your piddle.

Consult your doctor if:

If have knowledge of current bowel movements or a natural reflex, but you can still seek food.

- Fever lasts for 24 hours
- Actual aldohexose is 240 mg / dL (13.3 mmol / L)
- Trouble in keeping your aldohexose at certain intervals needed Request a gathering at the dressing clinic

CAUSES

During digestion body breaks down carbohydrates in food - such as bread, rice and food - in various sugar molecules. One of sugar molecules is monosaccharide, the main energy source

Comment [RI17]: There is already a section for symptom above! Even if the focus of each is different, there must be a way to merge them.

for body. Monosaccharide is absorbed directly into bloodstream once it has been ingested, but it cannot enter the cells of most of tissues and is not an endocrine aid - the endocrine that your body secretes(4).

As monosaccharide rises, it is indication that secret organ is slowing down the endocrine system. The endocrine opens up your cells so monosaccharide will enter and give fuel to your cells which must be forced to function properly. Any other monosaccharide adheres to the liver and muscles between the saccharide species.

This method results in lowering the amount of monosaccharide in blood and prevents it from reaching dangerous levels. As aldohexose level returns to normal, thus endocrine retention will emerge from private body(5-6).

Diabetes greatly reduces insulin function in body. This could be genitals are not able to produce endocrine (the first type of diabetes), or it ends up being because your body is evidence of endocrine effects or not producing enough endocrine to stay healthy. Daily monosaccharide level (type diabetes). As a result, monosaccharide usually develops in bloodstream

Risk factors

There are many factors that will influence a brand, including:

- Not enough endocrine abuse or abnormal oral gene
- Endocrine insufficiency or illegal endocrine abuse
- Do not follow your unusual genetic predisposition to prepare
- Inactivity
- Poor health
- Fainting
- Depression will cause symptoms as a result of hormonal imbalances or stress may cause your aldohexose to rise. Even people who do not have a genetic predisposition may experience temporary symptoms during serious illness. However people with abnormal genetics may need to be forced to seek other genetic abnormalities in order to remain aldohexose for an ancient purpose in all illness or depression.

Problems

Long-term problems

Keeping your aldohexose in place during healthy digestion will help prevent diabetes-related complications.

Chronic complications of hyperglycemia may include:

- Heart Problems
- Neuropathy
- Kidney Problems(diabetes nephropathy) or nephrosis
- Diabetic retinopathy, which can lead to visual impairment

- Cataract cataract
- Infection in teeth and gums

Diagnosis

- Generally doctor sets glucose level.. For people with diabetes blood sugar in following range is recommended before food.
- • Blood sugar level of 80 and 120 mg/Dl is recommended for people with age 59years below and do not have any underlying disease.
- • Blood sugar level of 100 and 140 mg/Dl is recommended for people with aged 60years above and have chronic health conditions such as kidney ,heart or lung disease and people with previous history of hyperglycemia and people with difficult realising hyperglycemia conditions.
- For people with diabetes, the following blood sugar levels is recommended by American Diabetes Association:
 - • Blood sugar level of 80 and 130mg/dL before meals
 - • Blood sugar level of less than 180mg/dL after meals
- The intended level of diabetes can vary especially in case of pregnancy or diabetes. Blood sugar level fluctuates with growing age and it becomes a great challenge to keep it in limits.
- **Monitoring glucose levels at home**
- Monitoring blood sugar with glucose meter at home is best way to keep glucose levels aligned and it also helps in keeping the blood sugar level in desired range. Blood glucose level should be checked on regular basis and should be consulted with doctor for better management.
- If there is a case of severe hyperglycemia- blood glucose level should be checked on daily basis. With blood sugar level values 240mg/dL or higher, over-the-counter urine ketones test kit should be used. If urine test detects the same, it is likely that your body has begun to make variations the variations could lead to diabetic ketoacidosis. Medical help is recommended to lower the glucose levels.

Hemoglobin A1C assay

- During the meeting doctor suggests to perform A1C test. The same blood test detects y blood sugar level between last two to three months. It is done by measuring sugar percentage in the blood which is linked to a protein that carries oxygen in the RBC's
- A AC level of seven or less percentage verifies that treatment is working and blood sugar level is always under the target range. If A 1C level was above seven %, your blood sugar, on average blood sugar was above normal. In same case, doctor may recommend changes in diabetes treatment plan .
- With few people, especially the old aged and people with various medical conditions such as heart, kidney or liver ,high A1C levels even upto 8% may be suitable.
- Standard scope for A1C results can vary with different labs and that should be kept in mind. If visiting a new doctor or getting tested with different lab, these possible differences should be kept in mind while interpreting A1C results.
- Need of A1C test depends on type of diabetes person is going through and it is generally done two to four times to people with high blood sugar levels.

Emergency issues

If your blood sugar level rises sufficiently it can create two serious conditions.

Diabetes. Ketoacidosis begins when you do not have enough hypoglycemic agents in your body. When this happens, sugar cannot enter cells for energy. Sugar levels rise, and your body starts breaking down fat for energy. The process produces unhealthy ketones. If not treated, ketoacidosis can cause coma and fallouts.

Hyperglycemic hyperosmolar condition. It occurs when people have produced a hypoglycemic agent, but it does not work properly. Blood sugar levels may be very high - greater than 1,000 mg / dL (55.6 mmol / L). Because the hypoglycemic agent is a gift but it does not work properly, the body cannot use hexose or fat to gain energy. Glucose is then released into the excretory product, resulting in an increase in excretion. If left untreated, a hyperglycemic hyperosmolar condition can cause dehydration and coma.

Prevention

Follow your design for genetic disorders. If you are taking a hypoglycemic agent antidepressant medication, it is very important that your diet do not change regarding the temporary supply of food and snacks.

Blood sugar should be checked on a regular basis. Before preparing for your treatment, you can monitor and blood sugar level several times a week or several times daily. Note that for the sake of ensuring that the blood sugar level remains the target is periodically determined.

Take your medicine as prescribed by your doctor(7).

Surgery or trauma.

It is very important to understand symptoms of hyperglycemia if you have one type of genetic disorder. If hyperglycemia is left untreated in people with a genetic predisposition, it will also turn into pathology, in which ketones, those unhealthy square acids, build up in the bloodstream. This condition is an Associate in Nursing emergency that can cause thirst or death.

symptoms of hyperglycemia include:

- High sugar level in blood
- Extra thirst
- Blurry vision. urination (urination).

Additional symptoms include:

Fatigue (feeling weak, tired).

Weight loss.

Diseases of the vagina and skin.

Slowly healing of sores and cuts.

symptoms of the pathology include

- Vomiting.
- Dehydration.
- Fruity smell in air
- Fast heartbeat.
- Confusion
- Comma.

TREATMENT REQUIRED

How should I prepare for the treatment and control of hyperglycemia?

People with all type 2 genetic disease can control hyperglycemia by eating a healthy diet, diligence and stress management. To begin with, a hypoglycemic agent can be an important source of hyperglycemia for people with mild genetic predisposition, while people with type 2 genetic disorders can receive oral medication and eventually a hypoglycemic agent to help them manage hyperglycemia.

TREATMENT REQUIRED FOR SEVERE HYPERGLYCEMIA?

With signs or symptoms of diabetic ketoacidosis or a hyperglycemic hyperosmolar condition, emergency room or hospital may be used for treatment. Emergency treatment helps lowering of blood glucose to normal levels. Treatment generally includes

Changing the liquid. Generally a fluid is received - generally through veins (intravenously.) – unless it is returned to the fluid. This fluid replaces the one you have lost with excess urination, and it helps in lowering of blood sugar levels.

Electrolytic Replacement. Electrolytes are minerals in blood which is important for the proper function related of tissues. Lack of insulin reduces electrolytes level in blood. Generally we will get electrolytes through arteries to nerve function working normally.

Insulin treatment. Insulin changes ketones build up process in your blood. As well as fluid and electrolyte, we will receive insulin treatment – which is generally through veins.

As body's chemicals comes back to normal, doctor evaluates the known possible causes of high conditions of hyperglycemia. Additional tests or treatments may be required depending of circumstances.

Antibiotics may be prescribed depending on the possibilities of bacterial infections. After looking for a heart attack possibility doctor may prescribe heart checkup(8).

PREVENTION

Can hyperglycemia be stopped?

- Exercise lowers blood sugar.

- Follow design if you have one. make sure the carbohydrates affect blood sugar, and work alongside genetic care team to look at your most effective design.
- Maintain a healthy weight.

It is argued that maternal hyperglycemia may or may not be more severe than polygenic disease is defined as an increased risk of adverse effects. **METHODS:** Out of 25,503 pregnant women in fifteen centers in nine countries received a 75g sugar tolerance test during the 24 to 30 gestation period. Information remained unaffected if immediate plasma hexose level was 5 Mg metric dose (5.87mmol ltr) or less and the 2 hrs plasma hexose dose was 2 hundred mg per dose metric dose (11.1 mmol liter) or Less . First letter, clinically diagnosed fetal trauma, and C-peptide level of coronary artery over nineteenth grade. Second outcomes were childbirth before the thirty-seventh week of pregnancy, shoulder dystocia, the need for intensive care of the baby, illness, and toxemia(9-18).

RESULTS:

Of the twenty-three 3,315 participants with no visual cues, we tend to calculate a moderate calculation of side effects associated with an increase in the rapid rate of plasma hexose in 1 American country (6.9 mg per metric capacity [0.3 mmol per liter]) of one hour American plasma hexose level (30.9 mg per metric capacity [1.9 mmol liter]), and an increase between the 2-hour plasma hexose level of the United States 1 (23.6 mg metric dose average each [1.4 mmol liter]). For birth weight over nineteen grade, odds were one.38 (94% confidence interval [CI], 1.32 to 1.44), 1.46 (1.38to 1.5), and 1.38 (1.33 to 1.45) , respectively; of fluid in the bloodstream C-peptide levels beyond ninety, 1.57 (93% CI, 1.46 to 1.66), 1.46 (1.38 to 1.57), and 1.37 (1.30 to 1.46); with the main action, 1.10 (94% CI, 1.05 to 1.16), 1.11 (1.07 to 1.11), and 1.09 (1.02 to 1.14); and child symbol, 1.09(91% CI, 0.94 to 1.21), 1.11(1.01 to 1.21), and 1.09(1.01 to 1.14). there are no obvious thresholds that risks increase. key organizations had to start acquiring in order to get second results, even though the ones that had been weakened

CONCLUSIONS:

Our results show a consistent, continuous association of maternal hexose levels below those diagnosed with elevated birth defects and C-peptide levels of plasma fluid.

REFERENCES:

1. Hyperglycemia (high blood glucose). American Diabetes Association. <http://www.diabetes.org/living-with-diabetes/treatment-and-care/blood-glucose-control/hyperglycemia.html>. Accessed June 5, 2020.
2. What is diabetes? National Institute of Diabetes and Digestive and Kidney Diseases. <https://www.niddk.nih.gov/health-information/diabetes/overview/what-is-diabetes>. Accessed June 5, 2020.
3. McCulloch DK. Management of persistent hyperglycemia in type 2 diabetes mellitus. <https://www.uptodate.com/contents/search>. Accessed June 5, 2020.
4. Kitabchi AE, et al. Diabetic ketoacidosis and hyperosmolar hyperglycemic state in adults: Treatment. <https://www.uptodate.com/contents/search>. Accessed June 5, 2020.
5. Know your blood sugar numbers: Use them to manage your diabetes. National Institute of Diabetes and Digestive and Kidney Diseases.

<https://www.niddk.nih.gov/health-information/diabetes/overview/managing-diabetes/know-blood-sugar-numbers>. Accessed May 30, 2018.

6. McCulloch DK. Glycemic control and vascular complications in type 2 diabetes mellitus. <https://www.uptodate.com/contents/search>. Accessed June 6, 2018.
7. American Diabetes Association. Standards of Medical Care in Diabetes — 2020. *Diabetes Care*. 2020; doi:10.2337/dc20-Sint.
8. The big picture: Checking your blood glucose. American Diabetes Association. <https://www.diabetes.org/diabetes/medication-management/blood-glucose-testing-and-control/checking-your-blood-glucose>. Accessed June 8, 2020.
9. Castro MR (expert opinion). Mayo Clinic, Rochester, Minn. July 7, 2018.
10. DKA (ketoacidosis) & ketones. American Diabetes Association. <https://www.diabetes.org/diabetes/complications/dka-ketoacidosis-ketones>. Accessed June 8, 2020.
11. Jameel, Patel Zeeshan, Sham Lohiya, Amol Dongre, Sachin Damke, and Bhavana B. Lakhkar. “Concurrent Diabetic Ketoacidosis and Pancreatitis in Paediatric Acute Lymphoblastic Leukemia Receiving L-Asparaginase.” *BMC PEDIATRICS* 20, no. 1 (May 18, 2020). <https://doi.org/10.1186/s12887-020-02136-3>.
12. Kaple, Meghali Narayan, Chandrashekhar C. Mahakalkar, Anita Kale, and Swati Shambharkar. “Correlation of Metal Ions in Diabetic Patients.” *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH* 14, no. 5 (May 2020): BC14–16. <https://doi.org/10.7860/JCDR/2020/43798.13730>.
13. Thakare, Pratiksha, And Ruchira Ankar. “To Assess The Knowledge Regarding Prevention Of Sign And Symptoms Of Diabetic Ketoacidosis Among Diabetes Patients In Selected Hospitals Of Wardha District.” *International Journal Of Modern Agriculture* 9, No. 3 (2020): 125–30.
14. Thakare PS, Ankar R. To Assess the Knowledge Regarding Signs and Symptoms of Diabetic Ketoacidosis and Its Prevention among Diabetes Patients in Wardha District, Maharashtra, India. *JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS*. 2021 May 10;10(19):1413–6.
15. Thool AR, Dhande NK, Daigavane SV. Study of Correlation between Renal Function Test and Severity of Diabetic Retinopathy in Patients with Type 2 Diabetes Mellitus. *JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES-JEMDS*. 2021 May 17;10(20):1511–4.
16. David P, Yeola M, Ankar R. Efficacy of Nursing Skin Care Protocol on Prevention of Skin Related Problems among Newly Diagnosed Diabetic Patients. *JOURNAL OF PHARMACEUTICAL RESEARCH INTERNATIONAL*. 2021;33(31A):1–8.
17. Kumar CA, Mahakalkar C, Yeola (Pate) M. Assessment of Risk Factors in the Causation & Outcomes of Diabetic Foot. *JOURNAL OF PHARMACEUTICAL RESEARCH INTERNATIONAL*. 2021;33(37A):264–70.
18. Muley PA, Biswas DA, Taksande A. A Pilot Study Investigating the effect of Glycemic Control on Electrodiagnostic Parameters in Type II Diabetic Patients. *JOURNAL OF PHARMACEUTICAL RESEARCH INTERNATIONAL*. 2021;33(32B):146–53.

UNDER PEER REVIEW