OPINION ARTICLE

Preventing strategies for diabetic coma: Types and symptoms

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Description

A diabetic coma is a serious and potentially life-threatening complication of diabetes that can occur when blood sugar levels become dangerously high or dangerously low. This medical emergency requires immediate attention, and understanding the causes, symptoms, and appropriate responses is crucial for individuals with diabetes and their caregivers. A diabetic who has high or low blood sugar or other substances in their body may go into a diabetic coma. Quick medical attention can hasten recovery. But if treatment is delayed, it may be lethal or cause brain damage. This article discusses about diabetic coma, its different types, contributing factors, symptoms, and emergency management.

Types of diabetic coma

Hyperosmolar Hyperglycemic State (HHS): This type of diabetic coma typically arises in individuals with type 2 diabetes. It is characterized by extremely high blood sugar levels and severe dehydration, leading to altered mental status and potential unconsciousness.

Diabetic Ketoacidosis (DKA): DKA is more common in individuals with type 1 diabetes but can also occur in type 2 diabetes. It results from a severe shortage of insulin, leading to the body breaking down fat for energy, producing ketones. Elevated ketone levels can lead to acidosis and unconsciousness

Hypoglycemic coma: While less common, a

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hypoglycemic coma can occur when blood sugar levels drop dangerously low. This condition is a result of an excess of insulin relative to glucose, leading to impaired brain function.

Contributing factors

Missed insulin doses: In individuals with diabetes, missed doses of insulin can contribute to both hyperglycemic and hypoglycemic comas.

Infection or illness: Infections or illnesses can trigger stress responses in the body, leading to fluctuations in blood sugar levels.

Insulin pump malfunction: For those using insulin pumps, malfunctions or errors in insulin delivery can lead to imbalances in blood sugar levels.

Poor medication management: Inadequate management of diabetes medications, including improper dosages or timing, can contribute to diabetic comas.

Symptoms

The symptoms of a diabetic coma can vary depending on whether it is hyperglycemic or hypoglycemic. Common signs include:

- Hyperglycemic coma
- Extreme thirst and dehydration
- Confusion or altered mental status
- Seizures
 - Weakness or paralysis on one side of the

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body

- Visual disturbances
- Diabetic Ketoacidosis (DKA)
- Deep, rapid breathing (Kussmaul breathing)
- Fruity-sweet breath odor
- Nausea and vomiting
- Abdominal pain
- Hypoglycemic Coma
- Shaking or tremors
- Sweating
- Confusion or irritability
- Rapid heartbeat
- Unconsciousness
- For hyperglycemic coma, insulin may be administered under medical supervision.
- For hypoglycemic coma, a fast-acting source of glucose (e.g., oral glucose gel or tablets) may be needed.

- Rehydration, Intravenous fluids may be administered to rehydrate the individual and correct electrolyte imbalances.
- Monitoring and support, Continuous monitoring of blood glucose levels, vital signs, and other parameters is essential. Supportive care may include oxygen therapy, electrolyte replacement, and other measures as needed.

Diabetic coma is a serious complication that highlights the importance of vigilant diabetes management. Recognizing the signs, understanding the contributing factors, and taking prompt action can be life-saving. Individuals with diabetes and their caregivers should be educated on emergency protocols, and regular communication with healthcare providers can help prevent and manage situations that may lead to diabetic coma. With proper awareness and timely intervention, the risks associated with diabetic coma can be minimized, allowing individuals with diabetes to lead healthier lives.