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MATRIC NUMBER:17/MHS01/207

COURSE CODE: BCH 313

ASSIGNMENT

A.Define the following terms;

1. Ketogenesis
2. Ketonaemia
3. Ketonuria

B.What are the consequences of ketosis

C.Write concisely on mangement of ketoacidosis

**ANSWERS**

1. **Ketogenesis;**

This is the biochemical process through which organisms produce ketone bodies through breakdown of fatty acids and ketogenic amino acids. This process supplies energy under circumstances such as fasting or caloric restriction to certain organs, particularly the brain, heart and skeletal muscle.

1. **Ketonaemia;**

This is a condition marked by an abnormal increase of ketone bodies in the circulating blood.

1. **Ketonuria;**

This is a condition in which abnormally high amount of ketone and ketone bodies are present in the urine.

**Consequences of ketosis**

1. In ketosis, parts of the body and brain use ketones for fuel instead of carbs.
2. The "low-carb flu" or "keto flu" is a set of symptoms that can occur in the initial stages of ketosis.

Symptoms may include: Headache Fatigue, Brain fog, Increased hunger, Poor sleep, Nausea, Decreased physical performance

1. In ketosis, your breath, sweat and urine may smell like acetone. This ketone is produced by the liver from fat and increases on a ketogenic diet.
2. Some people may experience muscle cramps in ketosis. Loss of water and minerals increases your risk of leg cramps.
3. Constipation is a very common side effect of ketosis. Diarrhea may also occur in some people.
4. Some people also experience increased heart rate as a side effect of ketosis.

**Management of ketoacidosis**

Diabetic ketoacidosis (DKA) is a rare yet potentially fatal hyperglycemic crisis that can occur in patients with both type 1 and 2 diabetes mellitus. Due to its increasing incidence and economic impact related to the treatment and associated morbidity, effective management and prevention is key. Elements of management include making the appropriate diagnosis using current laboratory tools and clinical criteria and coordinating fluid resuscitation, insulin therapy, and electrolyte replacement through feedback obtained from timely patient monitoring and knowledge of resolution criteria. In addition, awareness of special populations such as patients with renal disease presenting with DKA is important. During the DKA therapy, complications may arise and appropriate strategies to prevent these complications are required. DKA prevention strategies including patient and provider education are important. This review aims to provide a brief overview of DKA from its pathophysiology to clinical presentation with in depth focus on up-to-date therapeutic management.