NAME:DARA SANCTUS

DEPARTMENT:MBBS

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BIOCHEMISTRY

ASSIGNMENT

1. Define the following terms:
2. Ketogenesis
3. Ketonaemia
4. Ketonuria
5. Ketogenesis
6. What are the consequences of ketosis
7. Write concisely on the management of ketoacidosis

ANSWERS

QUESTION ONE

1. KETOGENESIS: is the biochemical process through which organisms produce ketone bodies through breakdown of fatty acids and ketogenic amino acids.
2. KETONAEMIA: the presence of an abnormally high concentration of ketone bodies in the blood.
3. KETONURIA: the excretion of abnormally large amounts of ketone bodies in the urine, characteristic of diabetes mellitus, starvation, or other medical conditions.
4. KETOGENESIS: is the biochemical process through which organisms produce ketone bodies through breakdown of fatty acids and ketogenic amino acids.

QUESTION TWO

Ketosis is generally considered to be safe for most people. However, it may lead to a few side effects, especially in the beginning you may experience a range of negative symptoms e.g

1. THE LOW-CARB/KETO FLU: they are often referred to as ‘low-carb flu’ because they resemble symptoms of the flu, they may include the following:

* Headache
* Fatique
* Brain fog
* Increased hunger
* Poor sleep
* Nausea
* Decreased physical performance

NOTE:The low-carb flu os usually over within a few days.

1. BAD BREATH: its one of the common side effects of ketosis often is described as fruity and slightly sweet. Its caused by acetone, a ketone that is a byproduct of fat metabolism.
2. LEG MUSCLE CRAMP: Its connected to dehydration and loss of minerals. This is because ketosis causes a reduction in water weight.
3. DIGESTIVE PROBLEMS: this is the most common ketosis effect due to not eating enough fiber and not drinking enough fluids.
4. ELEVATED HEART RATE: Thus is also called heart palpitations or a racing heart, and can happen during the first weeks of a ketogenic diet.the major cause of this is being dehydrated,low salt intake and drinking a lot of coffee might also contribute to this.

Other effects of ketosis(which are less common) are the following:  
I. ketoacidosis

ii. kidney stone

iii. raised cholesterol levels.

QUESTION THREE

Managing diabetic ketoacidosis is an intensive care unit during the first 24-48

Hours always is advisable. When treasting patients with DKA, the following points must be considered and closely monitored:

* Correction fluid loss with intravenous fluids
* Correction of hyperglycemia with insulin
* Correction of electrolyte disturbances, particularly potassium loss
* Correction of acid-base balance
* Treatment of concurrent infection, if present