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Section (A)

1. Two students of MLT are talking about the use of cholesterol in food one says its good to have cholesterols in food the other said use of more cholesterol is not good for our health, they both asked from his class teacher and he replied "having high triglyceride levels in your blood can make you more likely to have _____
    A. Arthritis
    B. Feet infections
    C. Heart disease
    D. Beri Beri
2. Focal segmental glomerulosclerosis is a disease that scars the_____
    A. Bowman's capsule
    B. Glomeruli
    C. Pancreases
    D. Liver
3. Minimal change disease **"MCD"** is the most common cause of nephrotic syndrome in_____
    A. Women
    B. Men
    C. Children
    D. Aged
4. The main signs or symptoms make up nephrotic syndrome is/are_____
    A. Proteinuria
    B. Hyperlipidemia
    C. Hypoalbuminemia
    D. All of the above
5. To diagnose a patient nephrotic syndrome, you should go for?
    A. Urine Test
    B. Blood Test
    C. Biopsy
    D. All of the above
6. Your class teacher gives you a history of patient such that a patient having yellow skin and body fluid that is the by-product of RBCs breakdown, Red blood cells typically survive for about 120 days before the body breaks them down, an increased breakdown of RBCs made the skin and body fluids colour yellow, this is due to_____
    A. Bilirubin
    B. Cytokines
    C. Alpha blockers
    D. Side effects of NSAIDs
7. New-borns with jaundice are carefully monitored and generally improve within _____hours.

A. 04 to 07
B. 10 to 12
C. 12 to 24
D. 48 to 72

8. All are true regarding Bilirubin Test Except?
   A. Is used to detect an increased level in the blood
   B. Determine the cause of jaundice
   C. Cannot diagnose blockage of the bile ducts.
   D. Help diagnose conditions
9. A patient of malabsorption syndrome is admitted in LRH ward and you have to test the condition, of all the possible diagnostics test the most reliable test of malabsorption is_____
   A. Stool test
   B. Blood test
   C. Berth test
   D. Imaging
10. The Urine Albumin to Creatinine Ratio (UACR) is a test that estimates how much albumin is excreted in a _____period without requiring patients to collect urine for a whole day.
   A. 12-hour
   B. 24-hour
   C.
   D. 48-hour
   E. 72-hour

11. Which option are not **true** about kidney functions?
   A. Filter waste materials and toxin from the blood
   B. Production of vitamin E
   C. Red Blood Cells (Erythropoietin) formation
   D. Synthesize hormones that regulate blood pressure

12. Structural and Functional unit of the kidney is?
   A. Renal corpuscle
   B. Renal tubule
   C. Nephron
   D. All of the above

13. Normally: The pH of urine

   A. acidic
   B. alkaline
   C. varies from acidic to alkaline
   D. varies from alkaline to acidic

14. Uric acid is the end product of ……. catabolism.

A. Thymine
B. Pyramidin
C. Purine
D. Urea

15. …….is known as the good cholesterol.

A. HDL
B. LDL
C. VLLDL
D. Triglycerides

Section (B)

Q1 What do you know about proteinuria?

Proteinuria is the presence of excess proteins in the urine. In healthy persons, urine contains very little protein; an excess is suggestive of illness. Excess protein in the urine often causes the urine to become foamy (although this symptom may also be caused by other conditions). Severe proteinurina can cause nephrotic syndrome in which there is worsening swelling of the body.

Type of proteinuria :

There are two types of proteinuria .

Transient proteinuria : occurs in persons with normal renal function, bland urine sediment, and normal blood pressure. The quantitative protein excretion is less than 1 g/day. The proteinuria is not indicative of significant underlying renal disease; it may be precipitated by high fever or heavy exercise, and it disappears upon repeat testing. Exercise-induced proteinuria usually resolves within 24 hours.

Orthostatic proteinuria : is diagnosed if the patient has no proteinuria in early morning samples but has low-grade proteinuria at the end of the day. It usually occurs in tall, thin adolescents or adults younger than 30 years (and may be associated with severe lordosis). Patients have normal renal function and proteinuria is usually.

Symptoms of proteinuria : In most cases, proteinuria has no symptoms and is detected during a routine screening in people with high blood pressure or diabetes. If protein loss is severe, **swelling** or edema can be present in the .

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Other symptoms can include:

- Foamy urine.
- Weight gain caused by fluid retention.
- Diminished appetite.
- Hypertension.
- Face around the eyes
- Abdomen

Treatment of proteinuria:

If you have diabetes or high blood pressure, the first and second most common causes of kidney disease, it is important to make sure these conditions are under control.

- Controlling the underlying disease .
- ACE inhibitors
- Vaccination (influenza and pneumococcus.

Q2 explain Ketonuria and phenylketonuria in detail.

Answer : **phenylketonuria.**

Phenylketonuria (PKU) is a rare genetic condition that causes an amino acid called phenylalanine to build up in the body. Amino acids are the building blocks of protein. Phenylalanine is found in all proteins and some artificial sweeteners.

Phenylalanine hydroxylase is an enzyme your body uses to convert phenylalanine into tyrosine, which your body needs to create neurotransmitters such as epinephrine, norepinephrine, and dopamine. PKU is caused by a defect in the gene that helps create phenylalanine hydroxylase. When this enzyme is

missing, your body can’t break down phenylalanine. This causes a buildup of phenylalanine in your body.

Symptoms of phenylketonuria

PKU symptoms can range from mild to severe. The most severe form of this disorder is known as classic PKU. An infant with classic PKU may appear normal for the first few months of their life. If the baby isn’t treated for PKU during this time, they’ll start to develop the following symptoms:

E. seizures
F. tremors, or trembling and shaking
G. stunted growth
H. hyperactivity
I. skin conditions such as eczema
J. a musty odor of their breath, skin, or urine

Causes of phenylketonuria

PKU is an inherited condition caused by a defect in the PAH gene. The PAH gene helps create phenylalanine hydroxylase, the enzyme responsible for breaking down phenylalanine. A dangerous buildup of phenylalanine can occur when someone eats high-protein foods, such as eggs and meat.

Both parents must pass on a defective version of the PAH gene for their child to inherit the disorder. If just one parent passes on an altered gene, the child won’t have any symptoms, but they’ll be a carrier of the gene.

Ketonuria :

Ketonuria happens when you have high ketone levels in your urine. This condition is also called ketoaciduria and acetonuria.

Ketones or ketone bodies are types of acids. Your body makes ketones when fats and proteins are burned for energy. This is a normal process. However, it can go into overdrive due to some health conditions and other reasons.

Ketonuria is most common in individuals who have diabetes, particularly type 1 diabetes mellitus. It can also occur in women who are pregnant or breastfeeding.

If ketone levels rise too high for too long, your blood becomes acidic. This can harm your health.

Cause of ketonuria:

You can develop ketonuria even if you don't have diabetes or are on a strict ketogenic diet. Other causes include:

1. drinking excess alcohol
2. excessive vomiting
3. pregnancy
4. starvation
5. illness or infection
6. heart attack
7. emotional or physical trauma
8. medications, such as corticosteroids and diuretics

9. drug use

symptoms of ketonuria :

Ketonuria may be a sign that you have ketoacidosis or leading to it. The higher your levels of ketones, the more severe the symptoms and the more dangerous it can become. Depending on severity, signs and symptoms can include:

1. thirst
2. fruity smelling breath
3. dry mouth
4. fatigue
5. nausea or vomiting
6. frequent urination
7. confusion or difficulty focusing

Q3 Enlist all the possible cause of Cushing syndrome?

Answer: Cushing syndrome :

Cushing's syndrome is a disorder that occurs when your body makes too much of the hormone cortisol over a long period of time. Cortisol is sometimes called the "stress hormone" because it helps your body respond to stress. Cortisol also helps

- maintain blood pressure
- regulate blood glucose, also called blood sugar

- reduce inflammation
- turn the food you eat into energy

The adrenal glands, two small glands on top of your kidneys, make cortisol.

causes Cushing's syndrome:

The most common cause of Cushing's syndrome is the long-term, high-dose use of the cortisol-like glucocorticoids. These medicines are used to treat other medical conditions, such as asthma, rheumatoid arthritis, and lupus. Glucocorticoids are often injected into a joint to treat pain. Use of glucocorticoids also suppresses the immune system after an organ transplant to keep the body from rejecting the new organ.

Other people develop endogenous Cushing's syndrome because their bodies make too much cortisol. Several types of tumors can cause the body to make excess cortisol

END . . .