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Question 1:

Answer: (I) type 1:

Diabetes mellitus

- (a) It is also called insulin depend diabetes mellitus.
- (b) It occur usually occur before 15 year of age, but can also occur in adults also.
- (c) Auto immune disease.
- (d) No insulin production.
- (e) Treatment insulin injection.

Type 2:

Diabetes mellitus (a) non-insulin dependent mellitus.a

- (b) It can occur at any stage of life.
- (C) Metabolic disease.
- (d)There is still least amount of production of insulin occur.
- (e) Exercise life style pills/ insulin.

Answer Part (II)

According to my opinion more effective device for insulin delivery is syringe. Because medical syringes are in small size, disposable and having fine need less that have special coating that make injection easy and painless as possible. It us most commonly insulin delivery system for diabetic patient and simple method for insulin delivery.

Question2: Explain the role of vitamin “K” in blood clotting and bleeding disorder?

Answer: PART1:

Vitamin “K” play important in bleeding disorder. Because it help in blood clotting and prevent loss of blood. Vitamin “k” produce prothrombin a protein and clotting factor (II, VII, IX, X) that is important for blood clotting. It catalyzes the reaction which is important for clotting factors synthesis.

Answer part2:

What does thrombolytic agents mean? Explain with example.

Thrombolytic agent. A thrombus mean clot of blood lytic mean break down drug which is use to break down the blood clot is called thrombolytic agent. Thrombolytic agent are most commonly in DVT, pulmonary embolism heart attack. Stroke all thrombolytic agents convert plasminogen to plasmin which break down the fibrinogen and fibrin and dissolve the clot.

Example. 1 anistreplase.

2 reteplase.

3 streptokinase (s-k).

4 Atelase.

Ateplase

Is a thrombolytic agent which involve in conversion of plasminogen into plasmin which lysis fibrin and dissolve the blood clot and reduce the complication.

Question 3

Answer:

part1: effects:

- (I)** Organic nitrates are used in all types of angina. It causes dilating of the large veins as the result pooling of blood occurs. Which reduce the preload and decrease the work of heart.
- (II)** It can also increase blood supply to heart muscle. But the overall effect of organic nitrates is that to reduce myocardial oxygen demand and decrease work of heart.

Adverse effect. Adverse effects are unknown. But side effects are known.

Example: (Dizziness, headache, decrease blood pressure, blurred vision).

Question 4:

Answer:

Part (I)

Primary hypertension.

90-95% (essential hypertension)

- (a) High blood pressure unknown cause above 130 over 80.
- (b) Very common in family history.
- (c) High BMI very common.
- (d) Cannot usually be treated.

Secondary hypertension.

5-10%

- (a) Known cause above 130 over 80.

- (b) Renal disease, endocrine disease, steroid excess. (Conns syndrome, coughing syndrome). Growth hormone increase, catecholamine excess.
- (c) Not common in family history.
- (d) BMI high are not common

Part II: renin is important enzyme of renin angiotensin system. (RAAS) system when blood pressure low it release from kidneys and release angiotensinogen from liver. Which convert into angiotensin I and angiotensin II. This angiotensin ii rise level of aldosterone in blood which is the blood pressure. But in hypertension this renin can be directly inhibited in hypertension (Aliskiren renin inhibitor). To decrease production of Ai and All and aldosterone to decrease blood pressure.

Part III: what is the importance of pharmacological treatment of hypertension?

Pharmacological treatment for hypertension is very important. Because hypertension or high blood pressure is dangerous because it can lead to stroke, heart attack , heart failure, or kidney disease. The main goal of pharmacological treatment is to lower high blood pressure and protect important organs.

Question 5:

Answer: part 1.

In left heart failure, the left atrium and ventricle are unable to adequately handle the blood returning from the lungs. This causes pressure to build up in the pulmonary veins, and fluid accumulates in the lung. Consequently, left heart failure is associated with pulmonary edema.

In right heart failure, the right atrium and ventricle are unable to handle blood returning from systemic circulation. This causes fluid to accumulate in the peripheral tissue, and ankle edema and organ congestion (liver, spleen) are typical manifestation. If both left and right

heart failure occur simultaneously, congestion is found in the lungs as well as the periphery.

Part 2: strategies divide in to step.

- (i)** Increase cardiac contractile performance and produce what is referred to as a positive inotropic refers to the force of muscle contraction; the primary drugs used to exert a positive inotropic effect the are cardiac glycoside.
- (ii)** Decrease cardiac workload through an effect on the heart or peripheral vasculature, or by controlling fluid volume, are recognized as beneficial in congestive heart failure. Angiotensin converting enzyme inhibitors, beta blockers, diuretics and vasodilator's.