

Kidneys

1. Urine analysis has shown high level of protein and erythrocytes in urine. This can be caused by the following:

- A. Effective filter pressure
- B. Oncotic pressure of blood plasma
- C. * Renal filter permeability**
- D. Hydrostatic primary urine pressure in capsule
- E. Hydrostatic blood pressure in glomerular capillaries

2. In a 50-year old patient during examination glucosuria at blood glucose 3,0 mmol/l was found, which are the most likely to be caused by:

- A. *Renal disorder**
- B. Essential hypertension
- C. Myxedema
- D. Pellagra
- E. Diabetes insipidus

3. As a result of continuous starvation the glomerular filtration rate has increased by 20%. The most probable cause of the glomerular filtration alteration under the mentioned conditions is:

- A. Increase in the systemic arterial pressure
- B. Increase in permeability of renal filter
- A. Increase of the renal blood flow
- B. *Decrease in the oncotic pressure of blood plasma**
- C. Increase of the filtration quotient

4. A patient with massive burns developed acute renal insufficiency characterized by a significant and rapid deceleration of glomerular filtration. What is the mechanism of its development?

- A. Damage of glomerular filter
- B. Rise of pressure of tubular fluid
- C. Reduction of functioning nephron number
- D. *Reduction of renal blood flow**
- E. Renal artery embolism

5. As a result of road accident a driver has gotten a trauma. Now he is in shock condition and presents with a decrease in daily diuresis down to 300 ml. What is the main pathogenic factor of such alteration in the diuresis?

- A. Decrease in number of the functioning glomerules
- B. Oncotic blood pressure drop
- C. Secondary hyperaldosteronism
- D. Increase of vascular permeability
- E. *Arterial pressure drop**

6. A patient has a decreased vasopressin synthesis that causes polyuria and as a result of it evident organism dehydration. What is the mechanism of polyuria development?

- A. Reduced glucose reabsorption
- B. Reduced tubular reabsorption of protein
- C. Acceleration of glomerular filtration

D.* Reduced tubular reabsorption of water

E. Reduced tubular reabsorption of Na⁺ ions

7. A man has a considerable decrease in diuresis as a result of 1,5 l blood loss. The primary cause of such diuresis disorder is the hypersecretion of the following hormone:

A. Cortisol

B. Corticotropin

C. Parathormone

D. *Vasopressin

E. Natriuretic

8. A concentrated solution of sodium chloride was intravenously injected to an animal. This caused decreased reabsorption of sodium ions in the renal tubules. It is the result of the following changes of hormonal secretion:

A. Vasopressin reduction

B. Vasopressin increase

C. Aldosterone increase

D. *Aldosterone reduction

E. Reduction of atrial natriuretic factor