1. A married couple applied to the genetic consultation in order to consult about their child with multiple abnormalities (microcephaly, idiocy etc). The woman has had an illnesses during her pregnancy but she did not take any teratogens or mutagens. The parents and the childs karyotype is normal. Anamnesis study revealed that the family kept a cat. What gravidic disease caused the childs abnormalities?

a. Dysentery
b. Leishmaniasis
c. Toxoplasmosis
d. Balantidiasis
e. Trichomoniasis

2. A patient who takes a blocker of membrane cytoreceptors of efferent conductor synapses of autonomic nervous system complains about dry mouth. What receptors are blocked?

a. alpha-adrenoreceptors
b. beta-adrenoreceptors
c. Nicotinic cholinoreceptors
d. H2-receptors
e. Muscarinic cholinoreceptors

3. Examination of a patient revealed enlargement of some body parts (jaw, nose, ears, feet, hands), but body proportions were conserved. It might be caused by intensified secretion of the following hormone:

a. Tetraiodothyronine
b. Somatostatin
c. Somatotropin
d. Triiodothyronine
e. Cortisol

4. A patient complains about attacks of laboured breathing, dizziness. He works at a chemical plant producing hydrocyanic acid. The described symptoms might be associated with dysfunction of the following enzyme:

a. Succinate dehydrogenase
b. Lactate dehydrogenase
c. Cytochrome oxidase
d. Catalase
e. Pyruvate dehydrogenase

5. After sprinting untrained people feel muscular pain as a result of lactate accumulation. It may be connected with intensification of the following biochemical process:

a. Lipogenesis
b. Glycogenesis
c. Glyconeogenesis
d. Pentose-phosphate cycle
e. Glycolysis

6. What vitamin deficiency leads to both disorder of reproductive function and distrophy of skeletal muscles?

a. Vitamin D
b. Vitamin B1
c. Vitamin A
d. Vitamin K
e. Vitamin E

7. Toxic pulmonary edema was reproduced on a laboratory rat by means of ammonium chloride solution. What is the leading pathogenetic factor of this edema?

a. Increase of lymph outflow
b. Increased permeability of capillars
c. Decrease of colloid osmotic pressure

d. Increase of venous outflow
e. Disorder of neural and humoral regulation

8. 15 minutes after a car accident examination of a 35 year old man revealed massive injury of lower extremities without serious external loos of blood. The victim is in excited state. What component of pathogenesis of traumatic shock is basic and requires urgent correction?
a. Internal loss of plasma
b. Pain
c. Intoxication
d. Acute renal insufficience
e. Cardiac function disorder

9. A patient has disorder of airways patency at the level of small and middle bronchs. What changes of acid-base balance may take place?
a. Metabolic alkalosis
b. Acid-base balance wont change
c. Respiratory alkalosis
d. Metabolic acidosis
e. Respiratory acidosis

10. The body temperature of a patient with an infectious disease rises once in two days up to 39,5-40,5°C and stays so for about an hour and then drops to the initial level. What type of fever is it?
a. Atypical
b. Intermittent
c. Remittent
d. Continued
e. Hectic

11. A 23 year patient was admitted to the hospital in grave condition with craniocerebral trauma. His respiration is characterized by a spasmodic long inspiration interrupted by a short expiration. What respiration type is it typical for?
a. Gasping
b. Cheyne-Stokes respiration
c. Biots respiration
d. Apneustic
e. Kussmauls respiration

12. Two days after myocardial infarction a patient had a sudden systolic pressure decrease up to 60 mm, tachycardia up to 140/min, dyspnea; the patient lost consciousness. What mechanism is principal for the shock pathogenesis?
a. Intoxication
b. Paroxysmal tachycardia
c. Anaphylactic reaction
d. Decrease of cardiac volume
e. Decrease of circulating blood volume

13. After a psychoemotional stress a 48 year old patient had a sudden attack of acute heart pain with irradiation to the left hand. Nitroglycerine suppressed pain in 10 minutes. What pathogenetic mechanism is principal for the pain development?
a. Coronary vessel occlusion
b. Dilatation of peripheral vessels
c. Spasm of coronary vessels
d. Embarrassement of coronary vessels
e. Increased need of myocardium in oxygen

14. A 40 year old man who took part in disaster-management at a nuclear power plant fell sick with paradontitis. What etiological agent is the most important for the development of this pathology?
a. Iron deficit

b. Increased load of dentoalveolar apparatus
c. Streptococcus
d. Emotional stress
e. Malnutrition

15. A woman after labor lost 20 kg of body weight, her hair and teeth fall out, she has muscle atrophy (hypophysial cachexia). Synthesis of what hypophysis hormone is disturbed?
a. Gonadotropic
b. Prolactin
c. Corticotrophic
d. Thyreotropic
e. Somatotropic

16. Climbing the mountains at a height of 5000 m climbers started complaining of breath shortness, palpitation, vertigo, ring in the ears. What pathogenetic factor determines the development of these occurances?
a. Hypernatremia
b. Hypoxemia
c. Decreased oxygen capacity of blood
d. Hypokalemia
e. Lactacidemia

17. Damage of one of the reactors at a nuclear power plant resulted in runout of radioactive products. People who were present in the high-radiation area got approximately 250-300 R. They were urgently taken to the hospital. What blood changes will be typical for this period?
a. Thrombocytopenia
b. Neutropenia
c. Leukopenia
d. Anemia
e. Lymphopenia

18. A year after subtotal stomach resection on account of ulcer of lesser curvature the following blood changes were revealed: anemia, leukocytopenia and thrombocytopenia, color index - 1,3, megaloblasts and megalocytes. What factor deficiency caused the development of this pathology?
a. Hydrochloride acid
b. Pepsin
c. Gastrin
d. Castles factor
e. Mucin

19. A 45 year old patient was taken to the hospital by an emergency team with serious cranial trauma in shock condition. Objectively: unconscious, skin is pale, body t- 35,0C, low muscular tonus, reflexes are absent, pulse is rapid and weak, AP- 50/30 mm Hg. What clinical shock stage is it?
a. Torpid stage
b. Terminal stage
c. Excitement stage
d. Erectile stage
e. Inhibition stage

20. After traumatic tooth extraction a patient complains of a severe dull pain without accurate localization in his gum, body temperature rise up to 37,5C. He was diagnosed with alveolitis. What type of pain does the patient have?
a. Epicritic
b. Referred
c. Phantom
d. Protopathic
e. Visceral

21. After poisoning with an unknown drug a 37 year old patient has stereotypical face muscle contractions that imitate blinking and squinting. What form of motor function disorder of nervous system is it?

a. -
b. Hyperkinesia
c. Akinesia
d. Hypokinesia
e. Ataxy

22. A 12 year old boy came home from school and started complaining of headache, sickness, chill, periodical muscle pain, appetite loss, flabbiness. What period of illness are these symptoms typical for?

a. High point of illness
b. End of illness
c. Latent
d. Incubative
e. Prodromal

23. Rabbits lived on food with addition of cholesterol. Five months later the atherosclerotic aorta changes were revealed. Name the main cause of atherogenesis in this case:

a. Overeating
b. Endogenous hypercholesterolemia
c. -
d. Exogenous hypercholesterolemia
e. Hypodynamia

24. A patient with primary nephrotic syndrome has the following content of whole protein: 40 g/l. What factor caused hypoproteinemia?

a. Reduced protein synthesis in liver
b. Transition of protein from vessels to tissues
c. Proteinuria
d. Increased proteolysis
e. Disturbance of intestinal protein absorption

25. A man who took part in disaster-management at a nuclear power plant had hemorrhagic syndrome at the same time with acute radiation sickness. What is the most important thing for the pathogenesis of this syndrome?

a. Low activity of anticoagulative blood system
b. Thrombocytopenia
c. High activity of fibrinolysis factors
d. Destructed structure of vessel walls
e. High activity of anticoagulative blood system

26. Four months ago a 43 year old patient had a traumatic amputation of his lower extrimity. Now he complains of sensing the amputated extremity and having constantly grave, sometimes unbearable pain in it. What type of pain does he have?

a. Phantom
b. Neuralgia
c. Reflex
d. Thalamic
e. Causalgia

27. In crisis period a 14 year old child ill with diphtheria has AP- 70/50 mm Hg accompanied by abrupt fall in temperature and tachycardia. What form of vascular tone disturbance is it?

a. -
b. Acute hypotension
c. Vegetovascular dystonia
d. Chronic hypotension

e. Essential arterial hypotension

28. After a long-lasting and grave illness the blood pressure of a patient fell up to 60/40 mm; he has tachicardia, dyspnea, black-out. How can this state be defined?

a. Preagony
b. Shock
c. -
d. Apparent death
e. Agony

29. A patient ill with jaundice has increased content of conjugated bilirubin and bile acids in blood, no stercobilinogen in urine. What jaundice are these symptomps typical for?

a. Hepatic
b. Hemolytic
c. Cythemolytic
d. Obstructive
e. Hepatocellular

30. A newborn child ill with pylorostenosis has frequent vomiting accompanied by apathy, weakness, muscular hypertonia, sometimes convulsions. What form of acid-base balance disorder has developed?

a. Gaseous alkalosis
b. Metabolic acidosis
c. Excretory acidosis
d. Nongaseous alkalosis
e. Gaseous acidosis

31. A 19 year old patient was diagnosed with chronic acquired hemolytic anemia. What is the leading pathogenetic mechanism of this pathologys development?

a. Intracellular hemolysis
b. Toxic hemolysis
c. Autoimmune hemolysis
d. Hyposmolarity of plasma
e. Osmotic hemolysis

32. A 56 year old man was taken to the hospital with complaints of general weakness, pain and burning in the region of tongue, extremity numbness. In the past he had resection of cardiac part of ventricle. Blood test: Hb- 80 g/L; RBC- 2,01012/L; colour index of blood- 1,2; leukocytes - 3,5109/L. What type of anemy is it?

a. Hemolytic
b. Aplastic
c. Iron-deficient
d. B12 folic-deficient
e. Posthemorrhagic

33. After recovering from epidemic parotiditis a patient began to lose weight, he was permanently thirsty, drank a lot of water, had frequent urination, voracious appetite. Now he has complaints of skin itch, weakness, furunculosis. His blood contains: glucose - 16 mmole/L, ketone bodies - 100 mcmole/L; glucosuria. What disease has developed?

a. Steroid diabetes
b. Insulin-independent diabetes
c. Insulin-dependent diabetes
d. Diabetes insipidus
e. Malnutrition diabetes

34. A patient dropped into an ice hole, froze in the wind and fell ill. Body temperature rose up to 39,7 C and varied from 39,0 C to 39,8 C. Name the type of the patients temperature profile?

a. Febris continua

b. Febris hectica
c. Febris remittens
d. Febris intermittens
e. Febris recurrens

35. A patient has the following diagnosis: renal hypertension. What is the initial pathogenetic factor of arterial hypertension development in this case?
a. Hypernatremia
b. Intensified renin synthesis
c. Intensified angiotensin synthesis
d. Renal ischemia
e. Hyperaldosteronism

36. A diver who has been staying at the depth of 40 m for a long time fell ill with caisson disease as a result of decompression. The main pathogenetic factor is the following embolism:
a. Fat
b. Air
c. Gaseous
d. Paradoxical
e. Tissue

37. A 65 year old patient suddenly died. She suffered from thrombophlebitis of deep veins of shin. Autopsy revealed: trunk and bifurcation of pulmonary artery contain red loose masses with dull corrugated surface. What pathological process did the morbid anatomist reveal in pulmonary artery?
a. Fat embolism
b. Thromboembolism
c. Tissue embolism
d. Thrombosis
e. Foreign body embolism

38. Skin samples of a patient with bronchial asthma revealed allergen sensitization of poplar fuzz. What factor of immune system plays the main part in development of this immunopathological state?
a. -
b. IgE
c. IgM
d. IgD
e. Sensitized T-lymphocytes

39. A patient with insulin-dependent diabetes had an insulin injection. Some time later he felt weakness, irritability, excessive sweating. What is the main reason of these disorders?
a. Carbohydrate starvation of brain
b. Intensified ketogenesis
c. Reduced glyconeogenesis
d. Intensified lypogenesis
e. Intensified glycogenolysis

40. For the purpose of disinfection of nonmetallic surgical instruments the formaldehyde solution was used. What group does this anticeptic preparation belong to according to its chemical structure?
a. Halogenated compounds
b. Detergents
c. Aromatics
d. Alcohols
e. Aliphatics

41. A patient with an acute myocarditis has the clinic presentations of cardiogenic shock. What pathogenetic mechanism plays the main part in shock development?
a. Decrease of vascular tone
b. Increase of vascular tone

c. Depositing of blood in veins
d. Decrease of diastolic flow to the heart
e. Disorder of pumping ability of heart

42. A patient with inflammation of trigeminal nerve has been having progressive paradontitis for some years. What factor is the most important for parodontitis development?
a. Neurodistrophic disorders
b. Poor formation of immunoglobulins
c. Low activity of kallikrein-kinin system
d. Increased tone of vagus nerve
e. Low activity of leukocytic elastase

43. A patient with streptococcal infection of gums was prescribed a drug that contained beta-lactam ring in its structure. Which drug relates to this group?
a. Streptomycin sulfate
b. Chloramphenicol
c. Rifampicin
d. Erythromycin
e. Benzylpenicillin

44. Potassium cyanide that is a poison came into a patients organism and caused death a few minutes after it. The most probable cause of its toxic effect was abnormal activity of:
a. ATP-synthetase
b. Catalase
c. Cytochrome oxidase
d. NADP-H-dehydrogenase
e. Haemoglobin synthesis

45. A patient was admitted to a hospital with poisoning with unsound food. His stomach was lavaged with solution of potassium permanganate. What is its mechanism of action?
a. Release of iodine
b. Release of chlorine
c. Release of atomic oxygen
d. Disturbance of synthesis of respiratory chain enzymes
e. Destruction of bacteria membranes

46. Hydrocyanic acid and cyanides are the most violent poisons. According to the dose the death follows after a few seconds or minutes. The death is caused by the inhibited activity of the following enzyme:
a. Catalase
b. Methemoglobin reductase
c. Acetylcholinesterase
d. ATP-synthetase
e. Cytochrome oxidase

47. Treatment of many diseases involves use of cocarboxylase (thiamine pyrophosphate) for supplying cells with energy. What metabolic process is activated in this case?
a. Detoxication of harmful substances in liver
b. Oxidizing decarboxylation of pyruvate
c. Amino acids decarboxylation
d. Glutamate deamination
e. Decarboxylation of biogenic amines

48. A typical symptom of cholera is great loss of water and sodium ions. What mechanism underlies development of diarrhea in this case?
a. Inhibition of vasopressin synthesis in hypothalamus
b. Increased corticotropin synthesis
c. Increased secretion of renin by the cells of renal arterioles

d. Aldosterone oxidation in adrenal cortex
e. Activation of adenylate cyclase of enterocytes

49. A newborn has signs of dyspepsia after milk feeding. Symptoms of dyspepsia disappear when milk is substituted for glucose solution. The newborn has low activity of the following enzyme:
a. Isomaltase
b. Lactase
c. Maltase
d. Invertase
e. Amylase

50. For the preparation of the burned skin surface of a patient a certain medication was applied. Its antiseptic properties are provided by free oxygen released in presence of organic substances. What medication is it?
a. Potassium permanganate
b. Chlorhexidine
c. Sodium hydrocarbonate
d. Alcoholic iodine solution
e. Furacillin

51. A 30 y.o. patient is diagnosed with amebic dysentery. This diagnosis was bacteriologically confirmed. Name the preparation for its treatment:
a. Metronidazole
b. Itrakonazole
c. Acyclovir
d. Furacillin
e. Mebendazole

52. For infection prevention a patient who underwent appendectomy was prescribed a cephalosporin antibiotic. Antimicrobial activity of these antibiotics is called forth by the disturbance of the following process:
a. Microbial wall formation
b. Ribosomal protein synthesis
c. Cholinesterase block
d. Energy metabolism
e. Nucleic acid synthesis

53. It is required to disinfect equipment in a dental room. Choose a preparation without disagreeable odour and colouring power:
a. Formalin
b. Chlorhexidine bigluconate
c. Chloride lime
d. Carbolic acid solution
e. Ethacrydine lactate

54. A group of researchers set an experiment and obtained anucleate mutant cells. In the first place they will have disturbed synthesis of the following compounds:
a. Lipids
b. Transfer RNA
c. Ribosomal RNA
d. Monosaccharides
e. Polysaccharides

55. A patient consulted a dentis about a lesion of his oral mucosa. He was diagnosed with herpetic stomatitis. Which of the following drugs will have an effect on etiotropic factor?
a. Furacilinum
b. Acyclovir
c. Paracetamol

d. Dimedrol
e. Levamisole

56. A patient consulted a dentist about itching and burning in the oral cavity; high temperature. The patient was diagnosed with trichomonal gingivostomatitis. What drug should be chosen for his treatment?
a. Ampicillin
b. Gentamicin sulfate
c. Nystatin
d. Metronidazole
e. Doxycycline hydrochloride

57. A patient is ill with herpetic stomatitis provoked by immunosuppression. What preparation introduced intravenously, internally and locally can provide antiviral and immunopotentiating effect?
a. Remantadinum
b. Methisazonum
c. Amoxicillin
d. Acyclovir
e. Levamisole

58. A patient suffering form stomatitis was prescribed oral rinsing. Which antiseptic from the oxidant group is the most suitable for this purpose?
a. Ethyl alcohol
b. Chloramine
c. Boric acid
d. Alcoholic iodine solution
e. Potassium permanganate

59. A married couple applied to the genetic consultation in order to consult about their child with multiple abnormalities (microcephaly, idiocy etc). The woman has had an illnesses during her pregnancy but she didnt take any teratogens or mutagens. The parents and the childs karyotype is normal. Anamnesis study revealed that the family kept a cat. What gravidic disease caused the childs abnormalities?
a. Toxoplasmosis
b. Dysentery
c. Trichomoniasis
d. Balantidiasis
e. Leishmaniasis

60. A patient underwent a surgery for excision of a cyst on pancreas. After this he developed haemorrhagic syndrome with apparent disorder of blood coagulation. Development of this complication can be explained by:
a. Activation of fibrinolytic system
b. Reduced number of thrombocytes
c. Activation of Christmas factor
d. Activation of anticoagulation system
e. Insufficient fibrin production

61. ECG of a 44-year-old patient shows signs of hypertrophy of both ventricles and the right atrium. The patient was diagnosed with the tricuspid valve insufficiency. What pathogenetic variant of cardiac dysfunction is usually observed in case of such insufficiency?
a. Cardiac tamponade
b. Heart overload by volume
c. Primary myocardial insufficiency
d. Heart overload by resistance
e. Coronary insufficiency

62. A patient who takes a blocker of membrane cytoreceptors of efferent conductor synapses of

autonomic nervous system complains about dry mouth. What receptors are blocked?

a. Alpha-adrenoreceptors
b. Beta-adrenoreceptors
c. Nicotinic cholinoreceptors
d. H2-receptors
e. Muscarinic cholinoreceptors

63. Examination of a patient revealed enlargement of some body parts (jaw, nose, ears, feet, hands), but body proportions were conserved. It might be caused by intensified secretion of the following hormone:

a. Triiodothyronine
b. Cortisol
c. Somatostatin
d. Tetraiodothyronine
e. Somatotropin

64. A patient complains about attacks of laboured breathing, dizziness. He works at a chemical plant producing hydrocyanic acid. The described symptoms might be associated with dysfunction of the following enzyme:

a. Lactate dehydrogenase
b. Catalase
c. Pyruvate dehydrogenase
d. Cytochrome oxidase
e. Succinate dehydrogenase

65. As a result of improper feeding an infant got full-blown diarrhea. One of its main consequences is excretion of large amount of sodium bicarbonate. What form of acid-base balance disturbance is it?

a. Respiratory acidosis
b. Metabolic alkalosis
c. Excretory acidosis
d. Respiratory alkalosis
e. Acid-base balance wont be disturbed

66. After sprinting untrained people feel muscular pain as a result of lactate accumulation. I may be connected with intensification of the following biochemical process:

a. Glyconeogenesis
b. Lipogenesis
c. Glycogenesis
d. Glycolysis
e. Pentose-phosphate cycle

67. Blood of patients ill with diabetes mellitus has high content of free fatty acids. It may be caused by:

a. Accumulation of palmitoyl-CoA in the cytosol
b. Activation of synthesis of apolipoproteins A-1, A-2, A-4
c. Low activity of phosphatidylcholine-cholestein-acyltransferase of plasma
d. High activity of triglyceride lipase of adipocytes
e. Activation of ketone bodies utilization

68. What vitamin deficiency leads to both disorder of reproductive function and distrophy of skeletal muscles?

a. Vitamin A
b. Vitamin D
c. Vitamin B1
d. Vitamin E
e. Vitamin K

69. Toxic pulmonary edema was reproduced on a laboratory rat by means of ammonium chloride

solution. What is the leading pathogenetic factor of this edema?
a. Increase of venous outflow
b. Disorder of neural and humoral regulation
c. Increase of lymph outflow
d. Increased permeability of capillars
e. Decrease of colloid osmotic pressure

70. An experimental rat got intra-abdominal injection of 10 ml of 40% glucose solution. 60 minutes later the rat passed into a comatose state as a result of dehydratation. What is the mechanism of development of this state?
a. Loss of salts and water
b. Acid-base disbalance
c. Rise of oncotic pressure of extracellular fluid
d. Reduction of vasopressin secretion
e. Rise of osmotic pressure of extracellular fluid

71. 15 minutes after a car accident examination of a 35 year old man revealed massive injury of lower extremities without serious external loos of blood. The victim is in excited state. What component of pathogenesis of traumatic shock is basic and requires urgent correction?
a. Acute renal insufficience
b. Cardiac function disorder
c. Internal loss of plasma
d. Pain
e. Intoxication

72. A 50-year-old patient has been examined by a dentist and found to have crimson smooth tongue. Blood analysis revealed a decrease in RBC level and hemoglobin concentration, colour index of 1,3, symptoms of megaloblastic hematopoiesis, degenerative changes in WBCs. What blood disorder was found in this patient?
a. B12-folic-acid-deficiency anemia
b. Myeloid leukemia
c. Hemolytic anemia
d. Aplastic anemia
e. Iron deficiency anemia

73. A pregnant women developed severe toxemia with exhausting recurrent vomiting throughout a day. By the end of the day she developed tetanic convulsions and bodily dehydration. The described changes were caused by the following type of acid-base disbalance:
a. Nongaseous excretory acidosis
b. Nongaseous excretory alkalosis
c. Gaseous acidosis
d. Gaseous alkalosis
e. Nongaseous metabolic acidosis

74. After a diver had dived to a depth of 60 meters he got the following symptoms of CNS dysfunction: anxiety, euphoria, lack of attention, professional errors. These symptoms are associated with neurons being under a toxic effect of:
a. Lactate
b. Nitrogen
c. Carbon dioxide
d. Oxygen
e. Ammonia

75. A patient has disorder of airways patency at the level of small and middle bronchs. What changes of acid-base balance may take place?
a. Respiratory alkalosis
b. Metabolic alkalosis
c. Acid-base balance wont change

d. Respiratory acidosis
e. Metabolic acidosis

76. The body temperature of a patient with an infectious disease rises once in two days up to 39,5-40,5oC and stays so for about an hour and then drops to the initial level. What type of fever is it?
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b. Hectic
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d. Intermittent
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77. A 23 year patient was admitted to the hospital in grave condition with craniocerebral trauma. His respiration is characterized by a spasmodic long inspiration interrupted by a short expiration. What respiration type is it typical for?
a. Biots respiration
b. Apneustic
c. Kussmauls respiration
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78. After a psychoemotional stress a 48 year old patient had a sudden attack of acute heart pain with irradiation to the left hand. Nitroglycerine suppressed pain in 10 minutes. What pathogenetic mechanism is principal for the pain development?
a. Embarrassement of coronary vessels
b. Increased need of myocardium in oxygen
c. Dilatation of peripheral vessels
d. Coronary vessel occlusion
e. Spasm of coronary vessels

79. A 46-year-old patient suffering from the diffuse toxic goiter underwent resection of the thyroid gland. After the surgery the patient presents with appetite loss, dyspepsia, increased neuromuscular excitement. The body weight remained unchanged. Body temperature is normal. Which of the following has caused such a condition in this patient?
a. Reduced production of parathormone
b. Increased production of calcitonin
c. Reduced production of thyroxin
d. Increased production of thyroliberin
e. Increased production of thyroxin

80. A patient with periodontitis has developed gingival edema. The gums are of dark red colour. What local circulation disorder prevails in the gums of the patient?
a. Arterial hyperemia
b. Thrombosis
c. Embolism
d. Venous hyperemia
e. Ischemia

81. An 18-year-old patient complains of general weakness, fatigue, low spirits. The patient is of the asthenic constitution type. Ps- 68/min., AP- 90/60 mm Hg. She has been found to have primary neurocirculatory hypotension. What is the leading factor of the arterial pressure drop in this patient?
a. Decreased cardiac output
b. Decreased tonus of resistive vessels
c. Hypovolemia
d. Decreased minute blood volume
e. Deposition of blood in the veins of the systemic circulation

82. A 40 year old man who took part in disaster-management at a nuclear power plant fell sick with paradontitis. What etiological agent is the most important for the development of this pathology?

a. Malnutrition
b. Iron deficiency
c. Emotional stress
d. Increased load of dentoalveolar apparatus
e. Streptococcus

83. To prevent the transplant rejection after organ transplantation it is required to administer hormonotherapy for the purpose of immunosuppression. What hormones are used for this purpose?
a. Catecholamines
b. Thyroid
c. Mineralocorticoids
d. Sexual hormones
e. Glucocorticoids

84. A woman after labor lost 20 kg of body weight, her hair and teeth fall out, she has muscle atrophy (hypophysial cachexia). Synthesis of what hypophysis hormone is disturbed?
a. Thyreotropic
b. Corticotrophic
c. Somatotropic
d. Gonadotropic
e. Prolactin

85. Climbing the mountains at a height of 5000 m climbers started complaining of breath shortness, palpitation, vertigo, ring in the ears. What pathogenetic factor determines the development of these occurances?
a. Hypokalemia
b. Lactacidemia
c. Hypernatremia
d. Hypoxemia
e. Decreased oxygen capacity of blood

86. Damage of one of the reactors at a nuclear power plant resulted in runout of radioactive products. People who were present in the high-radiation area got approximately 250-300 R. They were urgently taken to the hospital. What blood changes will be typical for this period?
a. Anemia
b. Leukopenia
c. Lymphopenia
d. Thrombocytopenia
e. Neutropenia

87. A year after subtotal stomach resection on account of ulcer of lesser curvature the following blood changes were revealed: anemia, leukocytopenia and thrombocytopenia, color index - 1,3, megaloblasts and megalocytes. What factor deficiency caused the development of those pathology?
a. Mucin
b. Hydrochloride acid
c. Castles factor
d. Pepsin
e. Gastrin

88. A patient with a craniocerebral injury presents with respiration characterized by progressively deeper respiratory movements followed by a gradual decrease that results in a temporary stop in breathing. What pattern of abnormal respiration are these features typical for?
a. Apneustic
b. Cheyne-Stokes
c. Kussmauls
d. Biots
e. Gasping

89. A 45 year old patient was taken to the hospital by an emergency team with serious cranial trauma in shock condition. Objectively: unconscious, skin is pale, body temperature- 35°C, low muscular tonus, reflexes are absent, pulse is rapid and weak, AP- 50/30 mm Hg. What clinical shock stage is it?

a. Torpid stage
b. Terminal stage
c. Excitement stage
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90. After the traumatic tooth extraction a patient is complaining of acute, dull, poorly-localized pain in gingiva, body temperature rise up to 37,5°C. The patient has been diagnosed with alveolitis. Specify the kind of pain in this patient:

a. Epicritic
b. Heterotopic
c. Phantom
d. Protopathic
e. Visceral

91. After poisoning with an unknown drug a 37 year old patient has stereotypical face muscle contractions that imitate blinking and squinting. What form of motor function disorder of nervous system is it?

a. Akinesia
b. Hypokinesia
c. Hyperkinesia
d. Ataxy
e. -

92. A teenger had his tooth extracted under novocain anaesthesia. 10 minutes later he presented with skin pallor, dyspnea, hypotension. When this reaction is developed and the allergen achieves tissue basophils, it reacts with:

a. T-lymphocytes
b. IgE
c. IgD
d. IgA
e. IgM

93. A 12 year old boy came home from school and started complaining of headache, sickness, chill, periodical muscle pain, appetite loss, flabbiness. What period of illness are these symptoms typical for?

a. Prodromal
b. Incubative
c. End of illness
d. High point of illness
e. Latent

94. Rabbits lived on food with addition of cholesterol. Five months later the atherosclerotic aorta changes were revealed. Name the main cause of atherogenesis in this case:

a. Endogenous hypercholesterolemia
b. -
c. Overeating
d. Hypodynamia
e. Exogenous hypercholesterolemia

95. A patient with primary nephrotic syndrome has the following content of whole protein: 40 g/l. What factor caused hypoproteinemia?

a. Increased proteolysis
b. Disturbance of intestinal protein absorption
c. Transition of protein from vessels to tissues

d. Reduced protein synthesis in liver

e. Proteinuria

96. Examination of experimental rats that have been getting only carbohydrate feed for a long time revealed accumulation of water in tissues. What is the leading pathogenetic mechanism of edema development?

a. Hyperosmolar

b. Hypooncotic

c. Dysregulatory

d. Membranogenic

e. Lymphogenous

97. A man who took part in disaster-management at a nuclear power plant had hemorrhagic syndrome at the same time with acute radiation sickness. What is the most important thing for the pathogenesis of this syndrome?

a. Destructed structure of vessel walls

b. High activity of anticoagulative blood system

c. Low activity of anticoagulative blood system

d. Thrombocytopenia

e. High activity of fibrinolysis factors

98. After a long-lasting and grave illness the blood pressure of a patient fell up to 60/40 mm; he has tachicardia, dyspnea, black-out. How can this state be defined?

a. Apparent death

b. -

c. Agony

d. Shock

e. Preagony

99. A patient ill with jaundice has increased content of conjugated bilirubin and bile acids in blood, no stercobilinogen in urine. What jaundice are these symptomps typical for?

a. Obstructive

b. Hepatocellular

c. Cythemolytic

d. Hemolytic

e. Hepatic

100. A 10-year-old child cut his leg with a piece of glass and was sent to a clinic for an anti-tetanus serum injection. In order to prevent the development of anaphylactic shock the Besredka desensitisation method was applied. What mechanism underlies this method?

a. Binding to IgE fixed to mast cells

b. Stimulation of the immunological antigen tolerance

c. Binding of IgE receptors on mast cells

d. Stimulation of antigen-specific IgG2 synthesis

e. Inhibited synthesis of mast cells mediators

101. A 19 year old patient was diagnosed with chronic acquired hemolytic anemia. What is the leading pathogenetic mechanism of this pathologys development?

a. Autoimmune hemolysis

b. Intracellular hemolysis

c. Osmotic hemolysis

d. Hyposmolarity of plasm

e. Toxic hemolysis

102. A 56 year old man was taken to the hospital with complaints of general weakness, pain and burning in the region of tongue, extremity numbness. In the past he had resection of cardiac part of ventricle. Blood test: Hb- 80 g/L; RBC- 2,0x1012/L; colour index of blood- 1,2; leukocytes - 3,5x109/L. What type of anemia is it?

a. Hemolytic
b. Aplastic
c. Iron-deficient
d. B12 folic-deficient
e. Posthemorrhagic

103. A patient dropped into an ice hole, froze in the wind and fell ill. Body temperature rose up to 39,7°C and varied from 39°C to 39,8°C. Name the type of the patients temperature profile?
a. Febris hectica
b. Febris recurrens
c. Febris continua
d. Febris intermittens
e. Febris remittens

104. A patient has the following diagnosis: renal hypertension. What is the initial pathogenetic factor of arterial hypertension development in this case?
a. Intensified renin synthesis
b. Intensified angiotensin synthesis
c. Hypernatremia
d. Hyperaldosteronism
e. Renal ischemia

105. A woman with intractable vomiting was admitted to the infectious disease ward. What changes of water-salt metabolism are likely to be observed?
a. Hypo-osmolar dehydration
b. Hyperosmolar dehydration
c. Hyper-osmolar hyperdehydration
d. Hypo-osmolar hyperdehydration
e. Iso-osmolar dehydration

106. A 65 year old patient suddenly died. She suffered from thrombophlebitis of deep veins of shin. Autopsy revealed: trunk and bifurcation of pulmonary artery contain red loose masses with dull corrugated surface. What pathological process did the morbid anatomist reveal in pulmonary artery?
a. Foreign body embolism
b. Fat embolism
c. Thrombosis
d. Tissue embolism
e. Thromboembolism

107. ECG of a patient shows such alterations: P-wave is normal, P-Q-interval is short, ventricular QRST complex is wide, R-wave is double-peak or two-phase. What form of arrhythmia is it?
a. WPW syndrome (Wolff-Parkinson-White)
b. Atrioventricular block
c. Ciliary arrhythmia
d. Ventricular fibrillation
e. Fredericks syndrome (atrial flutter)

108. Skin samples of a patient with bronchial asthma revealed allergen sensitization of poplar fuzz. What factor of immune system plays the main part in development of this immunopathological state?
a. IgD
b. Sensitized T-lymphocytes
c. -
d. IgE
e. IgM

109. A patient with insulin-dependent diabetes had an insulin injection. Some time later he felt weakness, irritability, excessive sweating. What is the main reason of these disorders?
a. Intensified lypogenesis

b. Reduced glyconeogenesis
c. Intensified glycogenolysis
d. Intensified ketogenesis
e. Carbohydrate starvation of brain

110. For the purpose of disinfection of nonmetallic surgical instruments the formaldehyde solution was used. What group does this anticeptic preparation belong to according to its chemical structure?
a. Aromatics
b. Halogenated compounds
c. Detergents
d. Aliphatics
e. Alcohols

111. A patient with an acute myocarditis has the clinic presentations of cardiogenic shock. What pathogenetic mechanism plays the main part in shock development?
a. Decrease of diastolic flow to the heart
b. Depositing of blood in veins
c. Disorder of pumping ability of heart
d. Decrease of vascular tone
e. Increase of vascular tone

112. A patient with inflammation of trigeminal nerve has been having progressive paradontitis for some years. What factor is the most important for parodontitis development?
a. Increased tone of vagus nerve
b. Low activity of kallikrein-kinin system
c. Low activity of leukocytic elastase
d. Poor formation of immunoglobulins
e. Neurodistrophic disorders

113. A patient with streptococcal infection of gums was prescribed a drug that contained beta-lactam ring in its structure. Which drug relates to this group?
a. Benzylpenicillin
b. Erythromycin
c. Chloramphenicol
d. Streptomycin sulfate
e. Rifampicin

114. During a prophylactic medical examination a 7-year-old boy was diagnosed with daltonism. His parents are healthy and have normal colour vision, but his grandfather on his mother’s side has the same abnormality. What is the type of the abnormality inheritance?
a. Autosomal dominant
b. Recessive, sex-linked
c. Semidominance
d. Dominant, sex-linked
e. Autosomal recessive

115. Potassium cyanide that is a poison came into a patients organism and caused death a few minutes after it. The most probable cause of its toxic effect was abnormal activity of:
a. Catalase
b. NADP-H-dehydrogenase
c. Haemoglobin synthesis
d. Cytochrome oxidase
e. ATP-synthetase

116. A 12-year-old teenager has significantly put off weight within 3 months; glucose concentration rose up to 50 millimole/L. He fell into a coma. What is the main mechanism of its development?
a. Hyperosmolar
b. Ketonemic

c. Hypoxic
d. Lactacidemic
e. Hypoglycemic

117. A patient was stung by a bee. Examination results: his left hand is hot, pink and edematic, there is a big blister on the spot of the sting. What is the leading mechanism of edema development?
a. Reduced blood filling of vessels
b. Reduction of oncotic pressure of tissue
c. Reduction of osmotic pressure of tissue
d. Increased vascular permeability
e. Vascular damage caused by the sting

118. A surgeon used novocaine as an anaesthetic during surgical manipulations. 10 minutes after it the patient became pale, he got dyspnea and hypotension. What type of allergic reaction is it?
a. Immune complex
b. Cytotoxic
c. Anaphylactic
d. Stimulating
e. Cell-mediated

119. After the exposure to ionizing radiation a person was found to have a decrease in blood granulocyte level. What mechanism underlies these changes?
a. Leikopoiesis inhibition
b. Autoimmune process development
c. Disturbed release of mature leukocytes from the bone marrow
d. Increased disintegration of leucocytes
e. Increased passage of granulocytes into the tissues

120. An unconscious patient had been delivered to a hospital by the ambulance. Objectively: absent reflexes, occasional convulsions, irregular breathing. After a laboratory examination he was diagnosed with hepatic coma. What metabolite accumulation is essential for the development of the central nervous system disorders?
a. Urea
b. Bilirubin
c. Histamine
d. Ammonia
e. Glutamine

121. Examination of a patient revealed glycosuria and hyperglycemia. He complains of dry mouth, itchy skin, frequent urination, thirst. He has been diagnosed with diabetes mellitus. What is the cause of polyuria in this patient?
a. Decreased plasma oncotic pressure
b. Decreased cardiac output
c. Increased plasma oncotic pressure
d. Increased urine osmotic pressure
e. Increased filtration pressure

122. Hydrocyanic acid and cyanides are the most violent poisons. According to the dose the death follows after a few seconds or minutes. The death is caused by the inhibited activity of the following enzyme:
a. Acetylcholinesterase
b. Catalase
c. Methemoglobin reductase
d. Cytochrome oxidase
e. ATP-synthetase

123. Treatment of many diseases involves use of cocarboxylase (thiamine pyrophosphate) for supplying cells with energy. What metabolic process is activated in this case?

a. Amino acids decarboxylation
b. Glutamate deamination
c. Oxidizing decarboxylation of pyruvate
d. Decarboxylation of biogenic amines
e. Detoxication of harmful substances in liver

124. A newborn has signs of dyspepsia after milk feeding. Symptoms of dyspepsia disappear when milk is substituted for glucose solution. The newborn has low activity of the following enzyme:
a. Maltase
b. Invertase
c. Lactase
d. Amylase
e. Isomaltase

125. A patient with enteritis accompanied with intense diarrhea has reduced quantity of water in the extracellular space and increased quantity of water inside the cells as well as low blood osmolarity. Name this disorder of water-electrolytic metabolism:
a. Hyperosmolar hyperhydration
b. Hyposmolar hypohydration
c. Osmolar hypohydration
d. Hyperosmolar hypohydration
e. Hyposmolar hyperhydration

126. For the preparation of the burned skin surface of a patient a certain medication was applied. Its antiseptic properties are provided by free oxygen released in presence of organic substances. What medication is it?
a. Chlorhexidine
b. Furacillin
c. Potassium permanganate
d. Alcoholic iodine solution
e. Sodium hydrocarbonate

127. A 30 y.o. patient is diagnosed with amebic dysentery. This diagnosis was bacteriologically confirmed. Name the preparation for its treatment:
a. Acyclovir
b. Metronidazole
c. Itrakonazole
d. Mebendazole
e. Furacillin

128. It is known that patients with diabetes mellitus are more subject to inflammative processes, they have low regeneration and slower wound healing. What is the reason for this?
a. Decrease in protheosynthesis
b. Accelerated gluconeogenesis
c. Intensification of catabolism
d. Decrease in lipolysis
e. Increase in lipolysis

129. For infection prevention a patient who underwent appendectomy was prescribed a cephalosporin antibiotic. Antimicrobial activity of these antibiotics is called forth by the disturbance of the following process:
a. Ribosomal protein synthesis
b. Nucleic acid synthesis
c. Microbial wall formation
d. Energy metabolism
e. Cholinesterase block

130. It is required to disinfect equipment in a dental room. Choose a preparation without disagreeable

odour and colouring power:

a. Chlorhexidine bigluconate

b. Chloride lime

c. Formalin

d. Ethacrydine lactate

e. Carbolic acid solution

131. A patient was admitted to the infectious diseases department. His skin was dry, with low turgor; he had rice-water stool. The patient was diagnosed with cholera. This disease is ordinarily accompanied by the folowing disorder of water-electrolytic balance:

a. Hyposmotic hyperhydration

b. Isoosmotic hypohydration

c. Hypoosmotic hypohydration

d. Hyperosmotic hyperhydration

e. Hyperosmotic hypohydration

132. Prophylactic examination of a patient revealed hyperglycemia, ketonuria, polyuria, glycosuria. What form of acid-base balance disorder is the case?

a. Metabolic alkalosis

b. Metabolic acidosis

c. Nongaseous acidosis

d. Gaseous acidosis

e. Gaseous alkalosis

133. Injection of an anaesthetic before the tooth extraction resulted in development of anaphylactic shock accompanied by oliguria. What pathogenetic mechanism caused a decrease in diuresis in this case?

a. Decrease in hydrostatic pressure in the renal corpuscle capillaries

b. Damage of glomerular filter

c. Increase in vasopressin secretion

d. Increase in oncotic pressure of blood plasma

e. Increase in hydrostatic pressure in the Bowmans capsule

134. A patient presents with icteritiousness of skin, scleras and mucous membranes. Blood plasma the total bilirubin is increased, stercobilin is increased in feces, urobilin is increased in urine. What type of jaundice is it?

a. Haemolytic

b. Parenchymatous

c. Cholestatic

d. Obturational

e. Gilberts disease

135. A group of researchers set an experiment and obtained anucleate mutant cells. In the first place they will have disturbed synthesis of the following compounds:

a. Polysaccharides

b. Ribosomal RNA

c. Lipids

d. Transfer RNA

e. Monosaccharides

136. As a result of a trauma a patient has developed traumatic shock that led to the following disorders: AP is 140/90 mm Hg, Ps is 120 bpm. The patient is fussy, talkative, pale. Such state relates to the following shock phase:

a. -

b. Erectile

c. Terminal

d. Latent period

e. Torpid

137. A patient consulted a dentis about a lesion of his oral mucosa. He was diagnosed with herpetic stomatitis. Which of the following drugs will have an effect on etiotropic factor?

a. Acyclovir
b. Paracetamol
c. Furacilinum
d. Levamisole
e. Dimedrol

138. A patient consulted a dentist about itching and burning in the oral cavity; high temperature. The patient was diagnosed with trichomonal gingivostomatitis. What drug should be chosen for his treatment?

a. Gentamicin sulfate
b. Nystatin
c. Ampicillin
d. Doxycycline hydrochloride
e. Metronidazole

139. A patient is ill with herpetic stomatitis provoked by immunosuppression. What preparation introduced intravenously, internally and locally can provide antiviral and immunopotentiating effect?

a. Amoxicillin
b. Acyclovir
c. Levamisole
d. Remantadinum
e. Methisazonum

140. A patient suffering form stomatitis was prescribed oral rinsing. Which antiseptic from the oxidant group is the most suitable for this purpose?

a. Boric acid
b. Ethyl alcohol
c. Chloramine
d. Potassium permanganate
e. Alcoholic iodine solution

141. A patient suffers from the haemorrhagic syndrome that shows itself in frequent nasal bleedings, posttraumatic and spontaneous intracutaneous and intra-articular haemorrhages. After a laboratory study a patient was diagnosed with the type B haemophilia. This disease is provoked by the deficiency of the following factor of blood coagulation:

a. V
b. VII
c. VIII
d. XI
e. IX

142. A pregnant woman developed severe toxemia with exhausting recurrent vomiting throughout a day. By the end of the day she developed tetanic convulsions and dehydration. The described changes were caused by the following type of acid-base imbalance:

a. Nongaseous excretory acidosis
b. Nongaseous excretory alkalosis
c. Gaseous acidosis
d. Gaseous alkalosis
e. Nongaseous metabolic acidosis

143. A 50-year-old man has been undergoing treatment for peptic ulcer disease of the stomach. His digestion normalized, pain disappeared, and general mood improved. However, several weeks later he again developed epigastric pain, heartburn, and sour eructation. How can this clinical course be characterized?

a. Latent period
b. Relapse

c. Terminal state
d. Remission
e. Prodromal stage

144. After a total gastric resection the patient developed severe B12-deficient anemia with disturbed hematopoiesis. Changed erythrocytes appeared in the patient's blood. One of the signs of this anemia is the presence of the following in blood:
a. Megalocytes
b. Elliptocytes
c. Anulocytes
d. Normocytes
e. Microcytes

145. A patient with essential hypertension presents with circadian fluctuations in total peripheral vascular resistance to blood flow. What vessels will be the most affected in this case?
a. Arteriolovenular anastomoses
b. Veins
c. Aorta
d. Capillaries
e. Arterioles

146. On clinical examination a woman presents with excessive sweating, tachycardia, loss of weight, and tremor. What endocrine pathology can cause these signs?
a. Hypogonadism
b. Hypoaldosteronism
c. Hypothyroidism
d. Hypergonadism
e. Hyperthyroidism

147. A 49-year-old man presents with facial edema, significant proteinuria, hypoproteinemia, dysproteinemia, and hyperlipidemia. What provisional diagnosis can be made?
a. Nephrotic syndrome
b. Prostatitis
c. Cystitis
d. Pyelonephritis
e. Urolithiasis

148. A patient on the 2nd day after a cardiac infarction presents with acute decrease of systolic blood pressure down to 60 mm Hg with tachycardia 140/min., dyspnea, loss of consciousness. What mechanism is essential in the pathogenesis of shock developed in this case?
a. Development of paroxysmal tachycardia
b. Development of anaphylactic reaction to myocardial proteins
c. Increased myocardial excitability caused by products of necrotic disintegration
d. Decreased circulating blood volume
e. Decreased cardiac output

149. Lower limbs of a patient with varicose veins were examined. The patient's legs are cyanotic and pastose, skin temperature is low, single petechiae are observed. What disturbance of hemodynamics is it?
a. Venous hyperemia
b. Obstruction ischemia
c. Arterial hyperemia
d. Thromboembolism
e. Compression ischemia

150. After a mechanical injury a tourniquet was applied to the patient's arm to stop the bleeding. Below the tourniquet the arm became pale and numb. This condition is caused by:
a. Compression ischemia

b. Obstruction ischemia
c. Thrombosis
d. Angiospastic ischemia
e. Venous congestion

151. A 36-year-old man traveled to the mountains for a vacation (altitude of 2000 meters above the sea level). He developed increased respiration rate, tachycardia, and slight dizziness. Two days later these signs disappeared. This process is called:
a. Regeneration
b. Compensation
c. Adaptation
d. Inhibition
e. Proliferation

152. 30 minutes after the dental treatment the patient developed red itching spots on the face and oral mucosa. The patient was diagnosed with urticaria. What bioactive substance with vasodilating and pruriginous effect is produced during this type of allergic reaction?
a. Histamine
b. Leukotriene B4
c. Bradykinin
d. Interleukin-1
e. Prostaglandin E2

153. A 16-year-old girl, who has been starving herself for a long time to lose weight, developed an edema. This phenomenon is mainly caused by:
a. Hypoglycemia due to glycogen synthesis disturbance
b. Deceleration of glomerular filtration rate
c. Decreased production of vasopressin in the hypothalamus
d. Hypoproteinemia due to protein synthesis disturbance
e. Venous congestion and increased venous pressure

154. The doctor stated the absence of respiration and cardiac activity in a traffic accident victim. This condition lasts for 1 minute already. This clinical presentation corresponds with the following terminal state:
a. Agony
b. Clinical death
c. Traumatic shock, torpid phase
d. Traumatic shock, erectile phase
e. Preagony

155. A 50-year-old man, who has been suffering from chronic hepatic failure for years, developed ascites. What is the main mechanism of development of this new disorder in the patient?
a. Increased oncotic blood pressure
b. Increased pressure in the portal venous system
c. Increased blood levels of low density and very low density lipoproteins
d. Decreased hepatic synthesis of albumins and globulins
e. Appearance of neurotoxic substances in blood

156. A 56-year-old man with a valvular defect complains of lower limb edemas that lately increased in frequency. Name the local pathogenetic factor of edema development in this case:
a. Increase of oncotic blood pressure
b. Decrease of hydrodynamic blood pressure
c. Increase of interstitial pressure
d. Increase of hydrodynamic blood pressure
e. Decrease of vessel wall permeability

157. A woman was diagnosed with peptic ulcer of the stomach. She has a long history of rheumatoid arthritis. What drugs are the likely cause of this disease in the patient?

a. H2 blockers
b. Antibiotics
c. Glucocorticoids
d. Antihistamines
e. Antihypertensive drugs

158. Due to an accident on board a nuclear submarine, a soldier received a radiation dose of 5 Gy. He complains of headache, nausea, and vertigo. What changes in leukocyte number can be observed in this soldier after the irradiation?

a. Agranulocytosis
b. Lymphocytosis
c. Leukopenia
d. Neutrophilic leukocytosis
e. Eosinophilia

159. A patient was brought to the hospital with a lacerated wound of the maxillofacial area. Profuse bleeding from the wound could not be stopped for a long time. What disturbance of total blood volume will be observed within the first hour after the blood loss occurred?

a. Hypervolemia
b. No disturbances in blood volume
c. Oligocythemic hypovolemia
d. Polycythemic hypovolemia
e. Normocythemic hypovolemia