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**Test “KROK-2” Tasks in
RHEUMATOLOGY**

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Test "KROK-2" tasks in rheumatology: a collection of test tasks in
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Збірник тестових завдань "Тестові завдання КРОК-2 з ревматології " - для
підготовки до практичних занять з дисципліни "Внутрішня медицина" іноземним
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INTRODUCTION

The collection of test tasks “Test “KROK-2” Tasks in RHEUMATOLOGY” is designed to improve the quality of training of future general practitioners, including general practitioners / family doctors, since in recent decades there has been a significant spread and growth of the pathology of internal organs, especially rheumatological diseases.

In the presented collection of test questions, questions are considered that will be useful in practical work of therapists and will provide substantial assistance to students, interns, general practitioners, family doctors in mastering the problems of diagnosis and differential diagnosis of rheumatological diseases.

The collection of test tasks is built on the basis of the curriculum for the discipline "Internal Medicine", contains a sufficient number of test tasks that reveal the general provisions and a special part of the pathological states in rheumatology. The workshop includes test tasks from recent years from the Testing Center at the Ministry of Health of Ukraine.

The presented collection of test tasks is a rather relevant form of teaching students in higher educational institutions of III-IV accreditation levels from the standpoint of the Bologna process, including preparation for the "KROK-2" licensing exam.

1. A 35-year-old patient has been admitted to a hospital for pain in the left sternoclavicular and knee joints, lumbar area. The disease has an acute character and is accompanied by fever up to 38°C. Objectively: the left sternoclavicular and knee joints are swollen and painful. In blood: WBCs - $9,5 \cdot 10^9/l$, ESR - 40 mm/h, CRP - 1,5 millimole/l, fibrinogen - 4,8 g/l, uric acid - 0,28 millimole/l. Examination of the urethra scrapings reveals chlamydia. What is the most likely diagnosis?

- A. Bechterew's disease
- B. Rheumatoid arthritis
- C. Reiter's syndrome
- D. Rheumatic arthritis
- E. Gout

2. A 32-year-old patient has a 3-year history of asthma attacks, that can be hardly stopped with berotec. Over a few last months he has experienced pain in the joints and sensitivity disorder of legs and feet skin. Ps - 80/min, AP - 210/100 mm Hg. In blood: eosinophilia at the rate of 15%. What disease can be suspected in this case?

- A. Systemic lupus erythematosus
- B. Systemic scleroderma
- C. Dermatomyositis
- D. Wegener's disease
- E. Periarteritis nodosa

3. As a result of prolonged exposure to the sun a 20-year-old patient has developed low-grade fever, pain and swelling in the knee and ankle joints, erythema on her face and nose bridge, leukopenia and accelerated ESR. She has been provisionally diagnosed with systemic lupus erythematosus. What pathognomonic laboratory data may confirm this diagnosis?

- A. Antinuclear factor
- B. Accelerated ESR
- C. C-reactive protein
- D. Anaemia
- E. Lymphocytosis

4. A 32-year-old male patient has been suffering from pain in the sacrum and coxofemoral joints, painfulness and stiffness in the lumbar spine for a year. ESR- 56 mm/h. Roentgenography revealed symptoms of bilateral sacroileitis. The patient is the carrier of HLA B27 antigen. What is the most likely diagnosis?

- A. Rheumatoid arthritis
- B. Reiter's disease
- C. Spondylosis
- D. Ankylosing spondylitis
- E. Coxarthrosis

5. A 58-year-old patient complains about sensation of numbness, sudden paleness of II-IV fingers, muscle rigidity, intermittent pulse. The patient presents also with polyarthralgia, dysphagia, constipations. The patient's face is masklike, solid edema of hands is present. The heart is enlarged; auscultation revealed dry rales in lungs. In blood: ESR- 20 mm/h, crude protein - 85/l, γ -globulines - 25%. What is the most likely diagnosis?

- A. Systemic lupus erythematosus
- B. Raynaud's disease
- C. Systemic scleroderma
- D. Dermatomyositis
- E. Rheumatoid arthritis

6. A 45-year-old female patient complains of frequent liquid stools with a lot of mucus, pus and blood; pain across the abdomen, loss of 7 kg within 6 months. She has a 1-year history of non-specific ulcerative colitis. What group of drugs should be preferred for this patient?

- A. Antibacterial
- B. Sulfonamides
- C. Nitrofurans
- D. Polyenzymes
- E. Corticosteroids

7. A 36-year-old female patient complains of intense pain in the knee joints and neck. In the morning she experiences pain in the interscapular region and leg joints; pain subsides after warm-up gymnastics. The patient is overnourished, there is a clicking sound in the knees when squatting, the knees are somewhat disfigured, painful on palpation. Blood test results: ESR-18 mm/h, WbC- $8,0 \cdot 10^9/l$. Radiography reveals subchondral sclerosis in the left knee. What is the basis of this pathology?

- A. Degenerative processes in cartilage
- B. Autoimmune process in the synovium
- C. Deposition of urates (tophi) in the articular tissues
- D. Beta-haemolytic streptococcus

E. Hemarthrosis

8. After a holiday in the Crimea, a 36-year-old female patient presents with severe pain in the elbow joints, dyspnea and weakness. The body temperature is of 37,6°C, the skin is pale, there is erythema of cheeks and nose, lower lip ulceration. Visual inspection reveals no changes in the joints, the right elbow movement is limited. There is murmur and pleural friction in the lungs below the right angle of the scapula. Cardiac sounds are muffled, there is tachycardia, gallop rhythm, Ps- 114/min. AP- 100/60. What is the most likely diagnosis?

- A. Rheumatoid arthritis
- B. Infectious allergic myocarditis
- C. SLE
- D. Rheumatic heart disease
- E. Dry pleurisy

9. A 53-year-old male has been admitted to a hospital for an attack of renal colic which has repeatedly occurred throughout the year. Objectively: in the region of auricles and the right elbow some nodules can be seen that are covered with thin shiny skin. Ps- 88/min, AP- 170/100 mm Hg. There is bilateral costovertebral angle tenderness (positive Pasternatsky's symptom). The patient has been scheduled for examination. What laboratory value would be most helpful for making a diagnosis?

- A. ESR
- B. Urine sediment
- C. Lactic acid
- D. Uric acid
- E. Rheumatoid factor

10. A 39-year-old male patient complains of moderate pain and weakness in the shoulder, back and pelvic girdle muscles, that has been progressing for the last 3 weeks; great difficulty in getting out of bed, going up and down the stairs, shaving. Dermatomyositis has been suspected. Blood test results: Hb-114 g/l, WBC- 10,8 - 109/l, eosinophils - 9%, ESR -22 mm/h, C-reactive protein - (++) . The alteration in the following laboratory value will be of decisive diagnostic significance:

- A. dsDNA antibodies
- B. Gamma-globulins
- C. Creatine phosphokinase
- D. Ceruloplasmin
- E. Sialic acids

11. A 60-year-old female patient complains of recurrent pain in the proximal interphalangeal and wrist joints, their periodic swelling and reddening that have been observed for 4 years. X-ray picture represents changes in form of osteoporosis, joint space narrowing and single usuras. What is the most likely diagnosis?

- A. Gout
- B. Pseudogout
- C. Multiple myeloma
- D. Rheumatoid arthritis
- E. Osteoarthritis

12. A 34-year-old patient after vacation in Crimea has developed severe pain in her elbow joints, dyspnea and weakness. Body temperature is 37,6oC, skin pallor and erythema on the cheeks and bridge of nose are observed, lip mucosa is ulcerated. The joints are not visibly deformed, movement of the right elbow joint is restricted. Pleura friction sound is detected in the lungs on the right side below the angle of scapula. Heart sounds are dull, tachycardia, gallop rhythm, heart rate -114/min, Bp - 100/60 mm Hg. The most likely diagnosis is:

- A. Dry pleurisy
- B. Systemic lupus erythematosus
- C. Rheumatic carditis
- D. Rheumatoid arthritis
- E. Infectious allergic myocarditis

13. A 28-year-old female patient with a six-year history of Raynaud's syndrome has recently developed pain in the small joints of hands, difficult movement of food down the esophagus. What disease can be suspected in this case?

- A. Systemic scleroderma
- B. Periarteritis nodosa
- C. Rheumatoid arthritis
- D. Systemic lupus erythematosus
- E. Pseudotrachiniasis

14. A 68-year-old patient complains of pain, slight swelling and creaking in the distal joints of her fingers and knee joints. She has been suffering from this condition for 4 years. Objectively: thickening of knee and interphalangeal joints, restricted mobility of these joints. Blood test: leukocytes -5, 4 • 10⁹/l, ESR - 12 mm/h, fibrinogen - 3,5 g/l; Rheumatoid factor -1:32; anti- streptolysin O -160

units; seromuroid - 0,20 units.; CRP+. What mechanism of development is likely for this condition?

- A. Glycosaminoglycans synthesis disruption
- B. Rheumatoid factor development
- C. Native DNA antibodies hyperproduction
- D. Increased uric acid synthesis
- E. Immune reaction to streptococcosis

15. A 40-year-old patient complains of constant moderate pain in the lumbar spine and significantly reduced mobility. The patient has been suffering from this condition for the last 7 years since pain appeared first in the sacrum area. X-ray: ankylosis of sacroiliac articulation, significant narrowing of intervertebral joint fissures of lumbar vertebrae and calcification of spinal ligaments. What pathology is most likely to cause such X-ray image?

- A. Spinal tuberculosis
- B. Spinal osteochondrosis
- C. Vertebral osteochondropathy
- D. Rheumatoid arthritis
- E. Ankylosing spondylitis

16. A 36-year-old female patient complains of general weakness, edemas of her face and hands, rapid fatigability during walking, difficult deglutition, cardiac irregularities. These symptoms developed 11 days after holiday at the seaside. Objectively: face erythema, edema of shin muscles. Heart sounds are muffled, BP is 100/70 mm Hg. In blood: ASAT activity is 0,95 millimole/hl, ALAT-1,3 micromole/hl, aldolase - 9,2 IU/l, creatine phosphokinase - 2,5 micromole P/gl. What method of study would be most specific?

- A. Determination of cortisol concentration in blood and urine
- B. Muscle biopsy
- C. ECG
- D. Echocardiogram
- E. Electromyography

17. 5 weeks after hypothermia a 22-year-old patient developed fever, weakness, muscle pain, inability to move independently. Objectively: tenderness, induration of shoulder and shin muscles, restricted active movements, erythema on the anterior surface of the chest. There is a periorbital edema with heliotropic erythema. Gottron's sign is present. What investigation is required for the diagnosis verification?

- A. Pneumoarthrography
- B. ASO titer
- C. Muscle biopsy
- D. Aminotransferase activity
- E. Rheumatoid factor

18. A 26-year-old woman is suspected to suffer from systemic lupus erythematosus due to systemic lesions of skin, vessels, joints, serous tunics, and heart that developed after photosensitization. The following is detected: LE cells, antibodies to native DNA, isolated anti-centromere antibodies, rheumatoid factor is 1:100, Wassermann reaction is positive, circulating immune complex is 120 units. What immunological indicators are considered to be specific to this disease?

- A. Anti-centromere antibodies
- B. Immunoglobulin A
- C. Increased circulating immune complex
- D. DNA antibodies
- E. Rheumatoid factor

19. For three years a 31-year-old woman has been complaining of pain and swelling of her radiocarpal and metacarpophalangeal articulations, their reduced mobility in the morning, which persisted up to 1,5 hours. Two weeks ago, she developed pain, swelling, and reddening of her knee joints, her body temperature increased up to 37,5oC. The treatment was belated. Examination of the internal organs revealed no pathologic alterations. Diagnosis of rheumatoid arthritis was made. What alterations are the most likely to be visible on the arthrogram?

- A. Joint space narrowing, subchondral osteosclerosis
- B. Cysts in the subchondral bone
- C. Numerous marginal osteophytes
- D. Epiphyseal osteolysis
- E. Joint space narrowing, usuration

20. After tonsillectomy a woman with systemic lupus erythematosus, who has been taking prednisolone for a year, developed acute weakness, nausea, vomiting, pain in the right iliac area, watery stool up to 5 times per day. Ps- 96/min., BP- 80/50 mm Hg. What preventive therapy should have been administered prior to the surgery?

- A. Increase of prednisolone dosage
- B. Prescription of desoxycorticosterone acetate
- C. Prescription of antibiotics

- D. Administration of Ringer's solution
- E. Administration of 10% NaCl solution

21. A 37-year-old patient complains of pain in the spinal column, reduced mobility. The condition persists for 7 years. "Sway back" is observed, there is no movement in all spinal regions. On X-ray: "bamboo spine" is detected. What is the most likely diagnosis?

- A. Ankylosing spondylitis
- B. Osteochondrosis
- C. Spondylitis deformans
- D. Tuberculous spondylitis
- E. Spondylolisthesis

22. An 18-year-old young man complains of pain in his knee and elbow joints and body temperature up to 39.5°C. One week and a half earlier developed sore throat. On examination his body temperature is 38.5°C. Swelling of the knee and elbow joints is observed. Pulse is 106/min., rhythmic. Blood pressure is 90/60 mm Hg. Cardiac borders are unchanged, heart sounds are weakened, at the cardiac apex there is soft systolic murmur. What factor would be the most indicative of the likely disease etiology?

- A. Anti-streptolysin O
- B. C-reactive protein
- C. Creatine kinase
- D. Rheumatoid factor
- E. Seromucoid

23. A 55-year-old woman, a cook, complains of pain in her right knee joint that has been troubling her for a month and intensifies in the evening. Objectively she is overweight, the knee joint is swollen, creaks during movement, palpation reveals localized pain. The 1st metatarsophalangeal articulation is deformed on the both feet. No changes in blood and urine are detected. What should be visible on the patient's X-ray?

- A. Osteoporosis, joint space narrowing, singular usurations
- B. Joint space narrowing, multiple usurations, subluxations
- C. Epiphyseal erosions, bony ankylosis
- D. Joint space narrowing, marginal osteophytes
- E. Joint space narrowing, round bone defects

24. A 25-year-old patient is not married and has sexual relations with several partners. During the last 3 months he noticed small amount of mucoserous secretions produced from urethra. Subjectively: periodical itching or burning pain in urethra. Two months ago, pain in knee joint developed. Possibility of trauma or exposure to cold is denied by the patient. During the last week eye discomfort is noted - lacrimation and itching. What provisional diagnosis can be suggested?

- A. Rheumatoid arthritis
- B. Reactive arthritis
- C. Seasonal pollinosis
- D. Bacterial nonspecific urethral conjunctivitis
- E. URTI with conjunctiva and joints affected

25. A 60-year-old male patient, who works as a construction worker, complains of pain in the right hip and knee joints, that is getting worse on exertion. These presentations have been observed for the last 5 years. Objectively: the patient is overnourished. Right knee joint is moderately deformed. Examination of other organs and systems revealed no pathology. Blood tet results: WBCs - $8,2 \cdot 10^9/l$, eSr - 15 mm/h. Uric acid - 0,35 mmol/l. What is the most likely diagnosis?

- A. Reactive arthritis
- B. Deforming osteoarthritis
- C. Gout
- D. Rheumatoid arthritis
- E. Reiter's disease

26. The 34-year-old woman fell ill 3 months ago after acute respiratory viral infection, when pain in the hand joints, morning stiffness, subfebrile body temperature appeared. At the inspection: edema and reduced muscular strength in proximal interphalangeal and carpophalangeal joints of the II, III, IV fingers. In blood: increased blood sedimentation, CRP and titres of rheumatoid factor. What course of the disease is possible:

- A. Slowly progressive.
- B. Long remission under the influence of primary therapy.
- C. Spontaneous remission.
- D. Rapidly progressive.
- E. All answers are true.

27. The 66-year-old woman complains on pain in the knee joints when walking. She is ill for 5 years. At the bending of the knee crepitation is revealed. At the roentgenography of joints: narrowing of the articular slit, marginal osteophytes.

The general analysis of blood is unchanged. Name the radiological sign, which is not characteristic for this disease:

- A. Narrowing of articular slit.
- B. Subchondral sclerosis.
- C. Periarticular osteoporosis.
- D. hypertrophy of articular surfaces.
- E. Subchondral cysts.

28. At the patient R., 36 years old, after use of alcohol and rich food there was an attack of acute arthritis of the right 1-st metatarsal phalangeal joint at night. At the inspection: edema of the joint, cyanosis of skin. In blood: L 12,0*10¹²/l, blood sedimentation 42 mm/hr. Select the starting therapy:

- A. Kolhicyn.
- B. Prednisolone.
- C. Allopurinol.
- D. Antibiotics.
- E. Dyprospan intraarticular.

29. The patient D., 25 years old, complains on pain in the lumbar spine during at least 4 years. At the inspection: there is no lumbar lordosis, lumbar flexion is painful and limited. In blood: blood sedimentation 28 mm/hr. At the radiography of spine: articular slits are narrowed, spine is served as a "bamboo stick". Select starting therapy:

- A. NSAIDs.
- B. Prednisolone.
- C. Delahil.
- D. Cytostatics.
- E. Physiotherapeutic treatment.

30. . At the patient with systemic lupus erythematosus in laboratory analyses leukopenia, anemia, thrombocytopenia, increased blood sedimentation and CRP, LE-cells (6 of 1000), high titer of antinuclear antibodies, positive Vaserman reaction (++) were determined. Change of what laboratory parameter is not directly linked with autoimmune pathogenesis of the disease:

- A. Increase of CRP.
- B. Anemia.
- C. Presence of antinuclear antibodies.
- D. LE-cells.
- E. Falsely positive Vaserman reaction.

31. At the 40-year-old man in the anamnesis there were 4 attacks of acute arthritis of the first metatarsal phalangeal joints, accompanied with increase of body temperature to 38°C. Objectively: deformation of these joints, on the cubital surfaces of extension-unpainful nodules 1.5*2 cm in size. In urine: proteinuria 0,099 g/l, microhematuria. What priority research need to be conducted at the patient:

- A. Definition of CRP.
- B. Determination of uric acid in blood.
- C. Definition of rheumatoid factor in blood.
- D. Determination of lipidogram.
- E. Determination of urea, creatinine in blood.

32. . The 56-year-old woman complains on pain in the knee joints of mechanical and starting nature. At the inspection: painful palpation of the joints, limited mobility, crepitation. What roentgenological changes do you expect to receive:

- A. Osteoporosis, the "prod" symptom.
- B. Osteoporosis, expansion of articular slit.
- C. Osteoporosis, change of articular surfaces.
- D. Subchondral osteosclerosis, asymmetric narrowing of joint slit.
- E. Osteoporosis, marginal osteophytes.

33. The 58-year-old patient complains on pain in the finger joints of hand, morning stiffness to 10 minutes. Mother and grandmother of the patient suffered on similar illness. At the inspection: deformation of distal interphalangeal joints, Heberdens` nodules. The leading etiologic role in the development of this disease:

- A. Degenerative process in the cartilage.
- B. Immune response to antigen.
- C. Deposition of intermediate products of metabolism in the joints.
- D. Mechanical overload of the joints.
- E. Allergic lesion of the joints.

34. The 26-year-old woman entered the hospital with complaints on morning stiffness, pain in the joints of hand, numbness and paleness of fingers in the cold. At the inspection thinning, dense skin of fingers found. At the radiography of hands: osteolysis of marginal phalanxes. Define the most informative research to clarify the diagnosis:

Reovasography.

- B. Electromyography.
- C. Microangiopathy.
- D. Thermal test.
- E. Determination of HLA B 27.

35. At the 24-year-old woman objectively fever up to 37.8°C , increase in the volume and painfulness of proximal muscles of pelvic and shoulder girdle, paraorbital edema and purple coloring of eyelids were determined. The most valuable laboratory criteria for confirming the diagnosis:

- A. Increase of blood sedimentation.
- B. Identification of antinuclear factor in blood.
- C. Identification of rheumatoid factor in blood.
- D. Identification of antibodies to muscle antigens.
- E. Increasing activity of creatinphosphokinase.

36. At the 19-year-old young man, who is suffering on chronic rheumatic heart disease for 11 years, mitral stenosis, heart failure II A stage is revealed. Which of the following signs is the most distinctive for this stage of heart failure:

- A. Shortness of breath during exercise.
- B. Dizziness.
- C. Pain in heart.
- D. Headache.
- E. Leg edema.

37. The 46-year-old man, who is suffering on psoriasis for 10 years, complains on pain and morning stiffness in the joints of hand. Objectively: skin over the joints (proximal and distal joints of the I and V left fingers and II, IV, V fingers of right hand) has purple-cyanotic color. In blood: increased blood sedimentation and CRP, hyperuricemia. Appoint the basic therapy:

- A. Kuprenil.
- B. Delahil.
- C. Sulphasalasyne.
- D. Cyclosporine.
- E. Metatreksat.

38. At the 56-year-old woman pain of mechanical nature, feeling of jamming at movements in the knee joints appeared. At the roentgenography of joints: narrowing of the articular slits, marginal osteophytes. What additional research

must be conducted:

- A. Proteinogram.
- B. Identification of CRP.
- C. Lipidogram.
- D. US research of joints.
- E. Potassium in blood.

39. At the 40-year-old man in the anamnesis there were 4 attacks of acute arthritis of the first metatarsal phalangeal joints, accompanied with fever. Objectively: deformation of these joints, on the cubital surfaces of extension-unpainful nodules 1.5*2 sm in size. In urine: proteinuria 0,099 g/l, microhematuria. What is the most credible diagnosis:

- A. Rheumatoid arthritis.
- B. Osteoarthritis.
- C. Gouty arthropathy.
- D. Reactive arthritis.
- E. Rheumatic arthritis.

40. At the echocardiography in M-mode at the patient, who has no complaints, P- shaped mitral valve with one-way movement of the leaflet found. What kind of valvular defect can be suspected:

- A. Aortic stenosis.
- B. Mitral stenosis.
- C. Aortic valve insufficiency.
- D. Mitral valve insufficiency.
- E. Tricuspid stenosis.

41. The 48-year-old man, who is suffering on gout for 6 years, complains on redness and edema of the first toe of his right foot. What could provoke flare:

- A. Violation of diet.
- B. Significant physical overload.
- C. Starvation.
- D. Alcohol.
- E. All answers are true.

42. The patient B., 18 years old, in 2 weeks after lacunar tonsillitis started to complain on pain in joints. During exercises felt dizzy. At the inspection: body temperature 37,6C, HR 120, reduced first tone and systolic noise on the top of heart. Your previous diagnosis:

- A. Acute rheumatic fever.
- B. Hypertrophic cardiomyopathy.
- C. Acute infectious myocarditis.
- D. Cardiopsychoneurosis.
- E. Infective endocarditis.

43. The patient M., 25 years old, complains on severe pain in the left ankle and right knee joints, increase of body temperature to 38C. A week ago he had a feeling of "sand" in the eyes and lacrimation, which quickly passed. At the inspection: edema of the joints, movements are limited, skin is hot at the palpation. Which agent is causative factor of this disease:

- A. Chlamydia.
- B. Gonococcus.
- C. Streptococcus.
- D. Staphylococcus.
- E. Campylobacter.

44. The patient G., 38 years old, complained on pain in the joints of hand, morning stiffness, subfebrile body temperature, which appeared a month ago after supercooling. At the inspection: proximal interphalangeal, carpophalangeal joints of the II and III fingers are swollen, hot at the palpation. Blood tests: L 8,6x10⁹/l, blood sedimentation 45 mm/h, CRP ++++. What laboratory research can confirm the diagnosis:

- A. Vaaler-Rose reaction 1:128.
- B. Antinuclear factor 1:64.
- C. LE-cells 2:1000 white blood cells.
- D. ASL-O 1:300.
- E. CRP +++.

45. The patient D., 52 years old, who has overweight, complains on pain in the knee and hip joints, which arise at the first movement and exercise. At the roentgenography of joints: narrowing of the articular slit, bone vegetations at the edges of joints. What treatment must be appointed:

- A. Chondroitin-sulfate.
- B. Allopurinol.
- C. Delahil.
- D. Metatreksat.
- E. Prednisolone.

46. The patient B., 19 years old, who received treatment of urethritis during 1 week at an urologist, and then during 3 days at an oculist with conjunctivitis, started to complain on pain in the right ankle and left knee joints. Laboratory studies: moderate leukocytosis, increased blood sedimentation and CRP. Name the prognosis of this disease:

- A. Prognosis is favorable, complete recovery.
- B. Recurrence is possible.
- C. Chronic disease course is possible.
- D. All answers are true.
- E. Correctly A, B.

47. The patient M., 27 years old, entered the hospital with complaints on morning stiffness, pain in the joints of hand. At the inspection: edema and deformation of proximal interphalangeal and carpophalangeal joints of the II, III fingers. In laboratory research: increase of RF titres. The roentgenological research of hands: periarticular osteoporosis. Your diagnosis:

- A. Rheumatoid arthritis.
- B. Systemic lupus erythematosus.
- C. Osteoarthritis.
- D. Rheumatic fever.
- E. Psoriatic arthritis.

48. The 21-year-old girl is suffering on systemic lupus erythematosus for a year. After influenza condition sharply became worse. Stable hyperthermia, dyspnea, tachycardia, high proteinuria, microhematuria, increased creatinine and urea in blood appeared. What treatment is the most effective:

- A. Pulse therapy of glucocorticoids.
- B. Alternating glucocorticoid therapy.
- C. Transient use of low dose glucocorticoids.
- D. Use of inhaled glucocorticoids.
- E. Intermittent glucocorticoid therapy.

49. At the patient O., 37 years old, pain and morning stiffness of radial and radiocarpal joints are observed during 9 months. In blood: significant increase of blood sedimentation and CRP. At the arthrogram: periarticular osteoporosis. Which medication must be used as the primary therapy:

- A. Indomethacin.
- B. Metatreksat.
- C. Cyclophosphamide.

- D. Prednisolone.
- E. Meloksykam.

50. The 48-year-old man, who suffers on chronic rheumatic heart disease, mitral stenosis, is treated on heart failure. On the background of treatment shortness of breath is reduced, but attacks of dry cough appeared. Side effect of what drug, used in treatment, is observed:

- A. Bisoprolol.
- B. Enalapril.
- C. Furosemide.
- D. Aspirin.
- E. Kardiket.

51. The patient V., 60 years old, complains on pain, edema and crackling in the distal joints of hand fingers. He is ill for 4 years. At the inspection: thickening of the distal interphalangeal joints of hand, mobility in them is limited. The general analysis of blood is unchanged, CRP +. Which of the following signs is the most distinctive for this disease:

- A. Heberdens` nodules.
- B. Subcutaneous nodes.
- C. Circular erythema.
- D. Tophuses.
- E. Calculi in the soft tissues.

52. At the patient D., 38 years old, on the background of diarrhea and fever macular rash on the trunk, arthralgia appeared. At the inspection: edema of the right knee and left ankle joints. In blood: $L 10,1 \cdot 10^9/l$, change to the left, blood sedimentation 27 mm/h; antibodies to yersinia 1:320. At the radiogram: periostitis of fine bones of foot. What is the previous diagnosis:

- A. Gouty arthritis.
- B. Reactive arthritis.
- C. Acute rheumatic fever.
- D. Gonorrheal arthritis.
- E. Psoriatic arthritis.

53. The patient M., 28 years old, complains on weightloss, hairloss, stable, permanent fever, severe pain in the joints of hands and feet, breathlessness, palpitations. At the inspection: erythema on the cheeks and nose, increased cervical, subaxillary lymphatic nodes. In blood: anemia, leukopenia, significant

increase of blood sedimentation. The probability of detection of which antibodies is the most credible:

- A. To double-stranded DNA.
- B. To platelets.
- C. To phospholipids.
- D. To erythrocytes.
- E. Cryoglobulins.

54. The patient R., 55 years old, complains on dysphagia, heartburn, arthralgia, myalgia, paleness of fingers at hypothermia. At the inspection: thickening of skin of hands, flexion contracture of the hand joints. The roentgenological research: osteolysis of unguial phalanx of hands. In blood: blood sedimentation 30 mm/hr. One of the links in the pathogenesis of this disease:

- A. The appearance of antibodies to collagen.
- B. The appearance of antibodies to native DNA.
- C. The appearance of antibodies to leukocytes, erythrocytes.
- D. The appearance of antibodies to cross-striated muscles.
- E. The appearance of antibodies to the vascular wall.

55. The patient K., 60 years old, complains on pain, limited mobility in the small joints of hands, that occur during exercise, more at night and calm down during rest. At the inspection: distal interphalangeal joints are deformed, on the lateral surfaces of joints-Heberdens` nodules. Your previous diagnosis:

- A. Psoriatic arthritis.
- B. Rheumatoid arthritis.
- C. Gouty arthritis.
- D. Osteoarthritis.
- E. Reactive arthritis.

56. The patient D., 48 years old, complains on severe pain in the big toe, which appeared suddenly in the night. At the inspection: edema, redness of skin over the joint. The content of uric acid in blood 0,78 mmol/l. Increase of uric acid can be caused by all factors, except:

- A. Treatment with thiazids.
- B. Starvation.
- C. A lot of fat in food.
- D. Treatment with kolhicyn.
- E. Regular consumption of beer.

57. The 28-year-old man complains on pain in the left ankle joint and left heel. Fell ill after left foot injury (played football). Likes beer and meat dishes. There was dysuria a month ago. At the inspection: edema of the left ankle joint, increased local temperature. In blood: L $10,5 \cdot 10^9/l$, blood sedimentation 28 mm/hr., uric acid of blood 0,42 mmol/l. In the urethral smear chlamydia is identified. The most credible diagnosis:

- A. Reactive arthritis.
- B. Secondary osteoarthritis.
- C. Gouty arthritis.
- D. Rheumatic arthritis.
- E. Rheumatoid arthritis.

58. The patient N., 23 years old, marks aching pain in heart, cardiac arrhythmia and arthralgia. Throughout the year suffered on angina twice. At the inspection: enlarged tonsils, reduced I tone and systolic murmur on the top of heart. At the ECG: PQ 0,24 sec.; L $9,8 \cdot 10^9/l$, blood sedimentation 27 mm/h, ASL-O 1:750. At the EchoCS: mitral regurgitation, telesystolic bulging of the anterior mitral valve leaf. Your previous diagnosis:

- A. Acute rheumatic fever.
- B. Tonsilogenic cardiomyopathy.
- C. Acute bacterial myocarditis.
- D. Mitral valve prolapse.
- E. Dystonia of cardiac type.

59. The patient K., 42 years old, suffers on systemic sclerosis with lesion of lungs (diffuse pneumosclerosis), heart (polytopic extrasystole), joints (sclerodactyly), Raynaud's syndrome. Name the drug of basic therapy:

- A. D-penicilamin.
- B. Enalapril.
- C. Cyclophosphamide.
- D. Azatyopryn.
- E. Prednisolone.

60. The 49-year-old man complains on sharp pain in the left metatarsal phalangeal joint of the big toe. At the inspection: body t $38,8C$, edema, hyperemia of skin over the joint. The roentgenological research: "stamped" defects of epiphyses. What laboratory changes are the most typical for this disease:

- A. Hyperuricemia.
- B. Eosinophilia.

- C. Positive RF.
- D. M-gradient in proteinogram.
- E. Increase of CRP.

61. The patient N., 32 years old, who suffers on SLE, is on maintenance therapy with prednisolone for 3 years. After insolation her condition sharply became worse. Fever, signs of pleurisy, pericarditis, nephritis appeared. In blood: anemia, leukopenia, blood sedimentation 50 mm/hr. What is the primary treatment:

- A. Prednisolone.
- B. Massive doses of antibiotics.
- C. Appointment of NSAIDs.
- D. Delahil.
- E. Cyclophosphamide, prednisolone.

62. At the patient S., 44 years old, who suffers on psoriasis for 8 years, pain in the proximal and distal interphalangeal joints of hand and heel, night pain in the buttocks appeared. In blood: blood sedimentation 28 mm/hr. At the radiography of hands: erosive, destructive changes and periosteal layers, positive symptom of "solar prominence". What is the most credible diagnosis:

- A. Psoriatic arthropathy.
- B. Rheumatoid arthritis.
- C. Rheumatic arthritis.
- D. Osteoarthritis.
- E. Tuberculous arthritis.

63. The patient N., 30 years old, injecting drug user, complains on shortness of breath, fever with chills. At the inspection: body t 38,8C, tachycardia, enlarged liver (3 sm), palpated painful spleen (4 sm). In blood: anemia, leukopenia, blood sedimentation 60 mm/hr. A doctor appointed EchoCS. At what valve vegetation is more likely to be determined:

- A. Mitral.
- B. Tricuspid.
- C. Aortic.
- D. Pulmonary artery.
- E. All answers are true.

64. The 23-year-old man complained on pain in the left ankle, right heel and right Achilles tendon. The disease began with dysuria. At the laboratory study

high titer of antichlamidial antibodies of Ig class M was determined. What drugs should be the first:

- A. Ofloksacyn.
- B. Benzylpenicillin.
- C. Ampicillin.
- D. Cefazolin.
- E. Flyukonazol.

65. The patient A., 46 years old, whose work is connected with weightlifting, complains on aching pain in the lumbar area. At the inspection: movements in the lumbar spine are limited, lumbar muscle strain, pain in Valle points. At the roentgenological research: reducing of height of intervertebral discs, marginal bone vegetations of vertebral bodies. What will prevent disease progression:

- A. Change of employment.
- B. Appointment of NSAIDs.
- C. Change of employment and consumption of chondroprotectors.
- D. Vitamin therapy.
- E. Preparations of calcium.

66. The patient K., 45 years old, was treated for 3.5 months with diagnosis of reactive arthritis. Despite adequate anti-inflammatory therapy, the disease took persistent nature. What must be added to treatment:

- A. Sulphasalasyne.
- B. Azatyopryn.
- C. D-penicilamin.
- D. Glucocorticoids.
- E. Gold drugs.

67. The patient R., 62 years old, entered the rheumatological unit with complaints on severe pain in the shin joints and lumbar spine, undulating fever with chills. He is a herdsman. At the inspection: lymphadenopathy, hepatosplenomegaly. In blood: leukopenia (granulocytopenia) with relative lymphocytosis. At the arthrography: subchondral osteoporosis. Your diagnosis:

- A. Brucellar arthritis.
- B. Bechterew`s disease.
- C. Rheumatic polimyalgia.
- D. Osteochondrosis of the spine.
- E. Psoriatic arthritis.

68. The patient T., 28 years old, complains on pain in the buttocks with radiation to feet, constant pain in the lumbar spine area, restricting of movement in the cervical and lumbar spine. For three years was treated on radiculitis. At the inspection: rotational motion in the cervical spine is limited, the distance "chin-sternum" is 10 cm. Blood sedimentation 38 mm/hr. Specify the most credible diagnosis:

- A. Rheumatoid arthritis.
- B. Ankylosing spondylitis.
- C. Reiter's disease.
- D. Discogenic radiculitis.
- E. Gouty arthropathy.

69. The 19-year-old girl, who fell ill in 2 weeks after otitis, complains on pain in the elbow and knee joints, fever. At the inspection: body t 38,6°C, edema of the joints, increase of local skin temperature, pulse 108 for 1 min., reduced first tone, systolic murmur on the top of heart. Blood tests: L 10,2*10⁹/l, blood sedimentation 39 mm/h. ECG rhythm is correct, PQ 0,24. Etiologic factor of this disease:

- A. Beta-hemolytic streptococcus.
- B. Staphylococcus aureus.
- C. Virus.
- D. Chlamydia.
- E. Pneumococcus.

70. At the 22-year-old girl there are fever, pain in major joints and muscles for three months, vision impairment, which expires. At the inspection: body t 38.4°C, AP on the right hand 130/80, on the left 80/60., at the auscultation of the left carotid artery stenotic rude noise is determined. In blood: blood sedimentation 42 mm/hr. What is the most credible diagnosis:

- A. SLE.
- B. Nodular polyarteritis.
- C. Takayasu's disease.
- D. Hemorrhagic vasculitis.
- E. Acute rheumatic fever.

71. The patient K., 65 years old, football player in the past, complains on pain in the right knee joint while walking. He is ill for 10 years. At the roentgenological research: expressed subcartilaginous sclerosis, marginal bone vegetation, height of articular slit is reduced. What is the previous diagnosis:

- A. Secondary osteoarthritis.
- B. Rheumatoid arthritis.
- C. Gouty arthropathy.
- D. Reactive arthritis.
- E. Rheumatism.

72. The 28-year-old woman complains on pain in the joints with limitation of motion, subfebrile temperature. In a differential diagnosis between rheumatoid arthritis and SLE what index will be critical:

- A. Increase of blood sedimentation.
- B. X-ray signs of periarticular tissue destruction.
- C. Presence of RF in blood serum.
- D. Presence of LE-cells in blood.
- E. Increase of Ig G, M, A and CRP.

73. The 36-year-old man complains on sharp pain in the left knee joint, fever with chills and uncontrolled perspiration. A month ago he was treated at a familiar urologist with "urethritis". At the inspection of the joint there are expressed exudative manifestations, hyperemia and local hyperthermia, on the skin of back and forearm-macular rash. In blood: leukocytosis, significant increase of blood sedimentation, increased content of CRP. What research must be conducted for confirmation of the diagnosis:

- A. Radiography and ultrasound research of the knee joint.
- B. Microscopy of smears of aspirated fluid for presence of gonococcus and Bordet- Gengou reaction.
- C. General analyses of blood and urine.
- D. Consultation of rheumatologist.
- E. Intraarticular introduction of glucocorticoids.

74. The 60-year-old patient, who is smoking for 30 years, complains on permanent pain in the knee, ankle, hip joints, periodic quickly passing edema of these joints. Weightloss is 8 kg for 3 months. There are also complaints on decrease of appetite and mood, weakness. In blood: increased blood sedimentation, anemia. He did not visit a doctor for 3 years. Your tactics:

- A. Only observation.
- B. Examination to detect rheumatoid arthritis.
- C. Examination to detect tumor.
- D. Examination to detect tuberculosis.
- E. Examination to detect osteoarthritis.

75. At the patient R., 45 years old, with diagnosed rheumatoid arthritis six years ago, edema of face and shins appeared. In blood: Hb 110 g/l, blood sedimentation 50 mm/h; in urine: protein 5,2 g/l, L 3-4, hyaline cylinders 4-5 in sight. Pathological changes in the analysis of urine are observed for three years. At the kidney biopsy secondary amyloidosis is diagnosed. Terminal renal failure at renal amyloidosis in patients with rheumatoid arthritis is developing:

- A. During 1 year.
- B. Within 1-5 years.
- C. In 6 years.
- D. In 7-10 years.
- E. In 15 years

76. The patient L., 26 years old, complains on pain in the area of the Achilles tendons at coming down on stairs, pain and stiffness in the lumbar area, which increases at night and decreases after physical exertion. At the examination positive symptoms by Kushelevsky are revealed. What is considered to be a marker of pathology, that developed at the patient:

- A. High titre of rheumatoid factor.
- B. Antimitochondrial antibodies.
- C. Antibodies to native DNA.
- D. Antystreptococcal antibodies.
- E. Antigen HLA B 27.

77. At the patient F., 38 years old, there is an asymmetrical damage of large joints of lower limbs. At the roentgenological research: periarticular osteoporosis and osteophytes of the heel bone (spurs). An urologist diagnosed purulent urethritis. What is the diagnosis at the patient:

- A. Reiter`s syndrome.
- B. Felty`s syndrome.
- C. Sjogren`s syndrome.
- D. Behcet`s syndrome.
- E. Bechterew`s disease.

78. The patient V., 25 years old, in 2 weeks after angina, started to complain on fever, pain and edema of the knee joints, rash in the form of red rings on the shank. A few days later pain in the ankle and elbow joints added. What disease is characterized by the following symptoms:

- A. Acute rheumatic fever.

- B. Rheumatoid arthritis.
- C. Reactive arthritis.
- D. SLE.
- E. Osteoarthritis.

79. At the patient K., 50 years old, who suffers on overweight, at night there was sharp pain and edema of the right I metatarsal phalangeal joint, body temperature rose. On the eve he took alcohol. To clarify the diagnosis a doctor has appointed examination. The most credible results:

- A. Increase of alkaline phosphatase.
- B. Presence of rheumatoid factor.
- C. Increased level of potassium.
- D. Increased level of uric acid in blood.
- E. Increased level of urea in blood.

80. The patient P., 19 years old, entered the hospital with complaints on severe pain during movements in the knee and ankle joints, fever. In the anamnesis: angina two weeks ago. At the inspection: body t 39,0C, pain at the palpation and edema of joints, local hyperemia and hyperthermia, heart tones are reduced, HR 120 per min., systolic murmur on the top of heart. Which of the following researches will help to confirm the diagnosis:

- A. Definition of ASL-O titer.
- B. Determination of uric acid in blood.
- C. Definition of rheumatoid factor.
- D. Determination of antinuclear antibodies.
- E. Determination of antibodies to native DNA.

81. The patient K., 39 years old, complains on pain, permanent morning stiffness in the joints of hands. At the inspection: proximal interphalangeal and carpophalangeal joints of the II, III and IV hand fingers are hot at the palpation, volume of movements is significantly reduced. CRP and blood sedimentation are significantly increased. What changes are expected at the X-ray:

- A. Osteoporosis, changes of articular surfaces.
- B. Subchondral osteosclerosis and cysts enlightenment.
- C. Bilateral sacroilitis.
- D. Narrowing of articular slit, osteophytes.
- E. Effusion in joints cavity, aseptic necrosis.

82. The patient R., 45 years old, entered the internal medicine unit with

complaints on edema of face and shins, strong weakness. In the anamnesis: rheumatoid arthritis was diagnosed six years ago. At the inspection: AP 90/60. In blood: Hb 110 g/l, blood sedimentation 50 mm/h; in urine: protein 5,2 g/l, L 3-4, hyaline cylinders 4-5 in sight. A doctor suspected secondary amyloidosis. Which organs can amyloid be deposit in:

- A. Liver.
- B. Spleen.
- C. Intestine.
- D. Adrenal glands.
- E. All answers are true.

83. The patient T., 28 years old, complains on permanent pain in the lumbar area, buttocks, which are amplified at night. At the inspection: body t 37,3°C, movement in the spine is limited: can not touch floor by the tips of fingers. In blood: L 10,2/9/1, blood sedimentation 35 mm/hr. At the radiography of pelvic bones: articular surfaces are rough, slits of joints are unevenly expanded. Name the most credible diagnosis:

- A. Ankylosing spondylitis.
- B. Reiter`s syndrome.
- C. Radiculitis.
- D. Psoriatic arthropathy.
- E. Rheumatic polimyalgia.

84. The patient M., 28 years old, complained on pain in the knee, shoulder joints, morning stiffness within 1 hour. She had been ill since 5 years old age, when for the first time pain and edema of the knee joint area, erythematous rash, increased lymphatic nodes appeared after angina. At the inspection: deformed knee joints, limited movements in them. In blood: blood sedimentation 42 mm/hr. What radiological sign you expect to receive:

- A. Narrowing of articular slit, change of articular surface.
- B. Narrowing of articular slit, osteosclerosis.
- C. Expansion of articular slit, osteophytes.
- D. Narrowing of articular slit, the "prod" symptom.
- E. Narrowing of articular slit, subcartilaginous cysts.

85. The patient B., 38 years old, during 3 months was complaining on pain in radiocarpal and proximal interphalangeal finger joints of hands, accompanied with stiffness till dinner, fever. In the area of radiocarpal joint small elastic nodule was determined. She took diclofenac without effect. The roentgenological

research of hands: periarticular osteoporosis. Your tactics:

- A. Conducting of basic therapy.
- B. Antibiotics for 7-10 days.
- C. Systemic enzyme therapy.
- D. Chondroprotective therapy.
- E. Appointment of physiotherapy.

86. The patient K., 31, complained on fever over the last three months, weightloss, pain in the testicles. A neurologist diagnosed peroneal nerve neuritis. In the anamnesis: hepatitis B. At the inspection: AP 180/110. In urine: protein 0,99 g/l, microhematuria. Your diagnosis:

- A. Systemic lupus erythematosus.
- B. Chronic glomerulonephritis.
- C. Systemic scleroderma.
- D. Hypertensive disease.
- E. Nodular polyarteritis.

87. The patient B., 38 years old, complains on weakness in the proximal muscle groups, difficulty at swallowing. At the inspection: body t 37,5°C, purple edema of eyelids, muscles of shoulder girdle and thighs are sharply painful. What examination is the most substantial for determination of the diagnosis:

- A. Biopsy of musculocutaneous graft.
- B. Determination of LE-cells.
- C. Determination of antinuclear factor.
- D. Determination of antimitochondrial antibodies.
- E. Examination at a neurologist.

88. The patient M., 30 years old, complains on pain and edema of the ankle, knee, radiocarpal and carpophalangeal joints, subfebrile temperature. He is ill for 6 years. At the inspection: deformity and restriction of movements in the above-mentioned joints; splenomegaly (+ 4 sm), hepatomegaly (+ 3 sm). In blood: anemia, leukopenia, increased blood sedimentation. What is the most credible diagnosis:

- A. Rheumatoid arthritis.
- B. Felty`s syndrome.
- C. Reiter's disease.
- D. Gouty arthropathy.
- E. Gonococcal arthritis.

89. The patient C., 32 years old, who suffered on polyarthritis in childhood, complained on breathlessness, fever with chills. At the inspection: body t 38,5C, symmetrical hemorrhagic rash on the skin of extremities, diastolic noise in the II intercostal area at the right and V point; enlarged liver (+ 2 sm), painful spleen at the palpation. In the analysis of blood: anemia, leukopenia, blood sedimentation 60 mm/hr. What changes at the examination are the most credible:

- A. Vegetation on the heart valve at the EchoCS.
- B. Increased titer of ASL-O.
- C. LE-cells.
- D. Thrombocytosis.
- E. Mitral heart configuration at the X-ray.

90. At the 22-year-old girl there are fever, pain in major joints and muscles for three months, vision impairment, which expires. At the inspection: AP on the right hand 130/80, on the left 80/60., at the auscultation of the left carotid artery stenotic rude noise is determined. In blood: blood sedimentation 42 mm/hr. What research must be conducted to define the diagnosis:

- A. Seeding of blood.
- B. Mantoux test.
- C. Determination of antinuclear antibodies.
- D. Determination of the rheumatoid factor level.
- E. Angiography.

91. The patient B., 19 years old, fell ill in 2 weeks after angina, when fever, severe pain, edema of the right and then left knee joints appeared, in a week-the same symptoms in the ankle added. In blood: leukocytosis, increased blood sedimentation, ASL 0,600 units. What clinical feature can be detected in this case:

- A. Circular erythema.
- B. Osler's` nodules.
- C. Erythema of face as a "butterfly".
- D. Petechias of conjunctiva.
- E. Iridocyclitis.

92. The patient T., 75 years old, complains on intense pain in the spine, which increases with exercise. In the anamnesis: operation on cervical hip fracture 3 years ago. At the densitometry: expressed osteoporosis of pectoral and lumbar spine with decreasing height of V thoracic vertebra. Content of calcium in blood is above normal. What therapy must be appointed:

- A. Calcium gluconate.
- B. Vitamin D.
- C. Calcitonin.
- D. Sodium fluoride.
- E. Estrogen.

93. The patient S., 70 years old, who suffered on hypertension, during the last month started to complain on constant headache, which gradually increased, fever to 38.4C and weakness. Treatment with klaforan for 5 days was ineffective. At the inspection: sharp pain at the palpation of temporal arteries and reducing of their pulsation. In blood: moderate anemia, blood sedimentation 65 mm/hr. What statement is true:

- A. Further examination is needed to exclude a brain tumor.
- B. The most credible is atherosclerotic lesion of cerebral vessels and branches of external carotid artery.
- C. The patient has chronic fatigue syndrome with the presence of fibromyalgia.
- D. At the radiographic study of skull focuses of destruction will be found.
- E. Clinical effect of tentative GC treatment may have diagnostic value.

94. The patient, who is suffering on gout and hypertension for a long time, entered the admission unit with symptoms of polyarthritis and increased AP to 180/100. What antihypertensive drugs are contraindicated in this case:

- A. Diuretics.
- B. Calcii antagonists.
- C. ACE inhibitors.
- D. B-blockers.
- E. AA-II.

95. The patient, who is suffering on gout and hypertension for a long time, entered the admission unit with symptoms of polyarthritis and increased AP to 170/100. What antihypertensive drug has the ability to withdraw uric acid of blood:

- A. Diuretics.
- B. Calcii antagonists.
- C. ACE inhibitors.
- D. B-blockers.
- E. AA-II.

96. The 19-year-old man complains on constant pain in the knee joints, which

amplifies at motion, increase of body temperature to 37.6C at night. In the anamnesis: a month ago fell from the bike. At the inspection: hyperthermia and edema of the joints. Select the primary diagnostic study:

- A. Puncture of the knee joint.
- B. Observation in dynamics with measurement of the size of the joints.
- C. Clinical analysis of blood.
- D. Thermal test of the knee.
- E. Determination of antistreptolysin and antistreptokinase in blood.

97. The 36-year-old man complains on sharp pain in the left knee joint, fever with chills and uncontrolled perspiration. A month ago he was treated at a familiar urologist with "urethritis". At the inspection of the joint there are expressed exudative manifestations, hyperemia and local hyperthermia, on the skin of back and forearm-macular rash. In blood: leukocytosis, significant increase of blood sedimentation, increased content of CRP. About what disease it follows to think:

- A. Acute rheumatic fever.
- B. Rheumatoid arthritis.
- C. Reactive arthritis.
- D. Gonorrheal arthritis.
- E. Gouty arthritis.

98. Detection of painfulness in the area of sacroiliac joint at the 25-year-old man with long-term recurrent monoarthritis of the large joint of axial skeleton shows:

- A. Bechterew`s disease.
- B. Lumbosacral osteochondrosis.
- C. Rheumatoid arthritis.
- D. Lyme disease.
- E. Psoriatic arthritis.

99. The patient T., 28 years old, complains on permanent pain in the lumbar area, buttocks, which amplifies at night. During examination: there is no lumbar lordosis, lumbar flexion is painful and limited. In blood: blood sedimentation 28 mm/hr. At the radiography of spine: articular slits are narrowed, spine is served as a "bamboo stick". What examination will confirm the diagnosis:

- A. Continuous increase of blood sedimentation.
- B. Hypochromic anemia.
- C. Increase of CRP.
- D. Determination of HLA B 27 antigen.

E. Increased activity of lysosomal enzymes.

100. The 45-year-old patient complained of severe pain in the right I-II metatarsal phalangeal joint, fever. The pain started suddenly about 6 a.m. On the eve he ate kebabs and drank red wine. At the inspection: body temperature 37.6°C, redness of skin over the joint, edema of soft tissues. This condition arose for the first time in life. Your diagnostic tactics-appointment:

- A. Arthrocentesis.
- B. Clinical analysis of blood.
- C. Analysis of uric acid in blood.
- D. Radiography of foot.
- E. Analysis of uric acid in daily urine.

101. The patient L., 32 years old, complains of breathlessness at moderate exercise, rapid fatigue. In the anamnesis: acute rheumatic fever in the 14-year-old age. At the inspection: pale skin, at the auscultation of aorta rough systolic murmur, which is heard on the vessels of neck, is determined. Your tactics:

- A. Observation in dynamics.
- B. Consultation of a rheumatologist.
- C. Consultation of a cardiologist.
- D. Appointment of antibiotics.
- E. EchoCG.

102. At the young woman after viral infection pain in the knee joints, fever appeared. At the inspection: pale skin, small rash on the skin of shins. In blood: leukocytosis, increased blood sedimentation; in urine: low proteinuria, microhematuria. In the pathogenesis of this disease is important all, except:

- A. Intravascular coagulation.
- B. Hyperproduction of immunoglobulin M.
- C. Hyperproduction of immunoglobulin A.
- D. Postponing of immune complexes around the vessels and subendothelially.
- E. Complement activation.

103. The 24-year-old man complains of pain in the left intercostal area, increased body temperature to 39.5°C with chills during 1 month. In the anamnesis: acute rheumatic fever in the 10-year-old age. At the inspection: pale skin, tachycardia, at the auscultation of aorta-diastolic noise, liver and spleen are enlarged. What is the most credible diagnosis:

- A. Infective endocarditis.

- B. Aggravation of rheumatic process.
- C. Cirrhosis.
- D. Chronic myeloleukemia.
- E. Pneumonia in the left inferior lobe.

104. The 45-year-old patient entered the hospital with attack of renal colic, relapsing during year. At the inspection: there are nodules in the area of ear and right elbow joint, which are covered with a thin shiny skin. What laboratory index will help to confirm the diagnosis:

- A. Blood sedimentation.
- B. Analysis of urine.
- C. Lactic acid of blood.
- D. Uric acid of blood.
- E. Creatinine of blood.

105. The patient D., 34 years old, who is suffering for 7 years, complains on pain in the lumbar area, cervical and thoracic spine at physical activities. At the inspection: body is fixed in the position of forward slope with lowered head, sciatic muscle atrophy. The radiography of the spine: ossification of longitudinal ligaments. What is the most credible diagnosis:

- A. Psoriatic spondyloarthropathy.
- B. Common osteochondrosis.
- C. Tuberculous spondylitis.
- D. Ankylosing spondylitis.
- E. Rheumatoid arthritis.

106. The patient G., 27 years old, who suffered on polyarthritis in childhood, came to visit a doctor with complaints on breathlessness, palpitations at exercise. At the inspection: tachycardia, amplified I tone on the top, presystolic noise, accent of second tone on pulmonary artery. What is the most credible diagnosis:

- A. Mitral insufficiency.
- B. Mitral valve prolapse.
- C. Aortic insufficiency.
- D. Mitral stenosis.
- E. Defect of intraventricular septum.

107. At the patient M., 45 years old, in 2 weeks after pneumonia short of breath, permanent aching pain in the precardiac area appeared. At the inspection: body t 37.3C, reduced I tone on the top. At the ECG: AV block of I degree. In blood: L

5, 6*10/9/l, blood sedimentation 18 mm/hr. What is the most credible diagnosis:

- A. Acute rheumatic fever.
- B. Pulmonary embolism.
- C. Infective endocarditis.
- D. Myocardial infarction.
- E. Acute myocarditis.

108. The patient G., 64 years old, complains on pain in the knee joints, which has a

starting character. At the inspection: deformity of the knee joints, limitation of mobility and crackle in them. There are Heberdens` nodules at the distal interphalangeal joints. For this condition all answers are true, except:

- A. It may be accompanied with morning stiffness for more than 30 minutes.
- B. Defiguration of joints is developed due to bone vegetation and joint capsule thickening.
- C. The end of this disease is bone ankylosis.
- D. Pain in the joints increases at movement.
- E. Motion in the joints accompanied with crepitation.

109. The 40-year-old patient complained on severe pain in the I metatarsal phalangeal feet joint at the left, fever. On the eve he took alcohol and ate meat dishes. At the inspection: body t 37,8C, redness of the joint, edema of soft tissues. This condition arose for the first time in life. What dietary recommendations will you advise:

- A. Take 2 liters of water per day.
- B. Exclude fried meat and fish from a diet.
- C. Exclude cakes from a diet.
- D. Exclude clear soups from a diet.
- E. All answers are true.

110. The patient L., 44 years old, complains on pain in the radiocarpal and proximal interphalangeal joints of hands, morning stiffness. She is ill for 5 years. At the inspection: edema of the joints, local increase of t, limited mobility. The roentgenological research: periarticular osteoporosis, narrowing of the articular slits. In the general analysis of urine: proteinuria. What kidney complication is the most credible at this state:

- A. Tubulointerstitial nephritis.
- B. Secondary amyloidosis.
- C. Pyelonephritis.

- D. Glomerulonephritis.
- E. None of these complications.

111. At the patient G., 48 years old, with Raynaud's syndrome, dense edema of skin and arthralgia, during capillaroscopy irregularity of microcirculation, deformation and reduction of capillary wall were found. Name, how the first phase of Raynaud's syndrome shows:

- A. Reactive hyperemia of fingers skin of hands and feet.
- B. Cyanosis of distal parts of limbs.
- C. Paleness of fingers of hand and feet due to vasoconstriction.
- D. Paresthesia of extremities.
- E. None of these answers.

112. The patient R., 25 years old, complains on pain and edema in the left knee and interphalangeal right foot joints, fever to 37.8C. Fell ill a month ago, when mucous-purulent discharges from urethra appeared, and later feeling of sand in the eyes. What drugs must be appointed in this case:

- A. Tetracycline.
- B. Hydrokortizon intraarticular.
- C. Prednisolone.
- D. Ampicillin.
- E. Sulfasalazin.

113. The patient U., 28 years old, complains on fever, shortness of breath, pain in muscles, joints, weight loss of 12 cg for 2 months. At the inspection: tachycardia, AP 160/100. In blood: L 12*10⁹/l, blood sedimentation 45 mm/hr. In urine: protein 0,99 g/l, microhematuria. Your previous diagnosis:

- A. Nodular polyarteritis.
- B. Dermatomyositis.
- C. Systemic lupus erythematosus.
- D. Acute glomerulonephritis.
- E. Kidney tumor.

114. The patient M., 20 years old, complains on fever, legs edema, pain in joints, palpitations, shortness of breath. At the inspection: erythema on the cheeks, tachycardia, moderate increase of liver. In blood: anemia, leukopenia, blood sedimentation 55 mm/hr. In urine: proteinuria 5,6 g/l, microhematuria. What method of research will confirm the diagnosis:

- A. LE-cells in blood.

- B. Kidney biopsy.
- C. EchoCS.
- D. Ultrasound research of kidneys.
- E. ASL-O in blood.

115. The patient B., 26 years old, complains on fever, pain in the area of heart and muscles, weight loss of 10 cg per month. At the inspection: tachycardia, AP 175/100, small painful nodules are palpated along the vessels of the extremities. In blood: L 14,0*10¹²/l, blood sedimentation 55 mm/hr. In urine: protein 0,66 g/l, microhematuria. What research method is the most informative:

- A. Biopsy of muscles and skin for histological examination.
- B. Seeding of blood.
- C. EchoCS.
- D. Kidney biopsy.
- E. LE-cells.

116. The patient S., 19 years old, complains on fever, pain in joints, palpitations, breathlessness, edema of the legs and face. At the inspection: lymphadenopathy, papular rash on the cheeks, tachycardia. In blood: Hb 96 g/l, blood sedimentation 65 mm/hr. In urine: proteinuria 3,3 g/l, microhematuria. To appoint the daily dose of glucocorticoids should be considered all the following, except:

- A. Course of the disease.
- B. Activity of the disease.
- C. Nature of organ pathology.
- D. Presence of cutaneous manifestations.
- E. Effectiveness of initial dose of glucocorticoids.

117. The patient L., 22 years old, complains on fever, edema of the legs, pain in joints, palpitations, shortness of breath. At the inspection: body t 39,0C, erythema on the cheeks, tachycardia. In blood: anemia, leukopenia, blood sedimentation 55 mm/hr. In urine: proteinuria 5,6 g/l, microhematuria. Cytostatic therapy at this state is indicated:

- A. When the diagnosis is confirmed.
- B. At the progressive course of the disease and ineffectiveness of glucocorticoids.
- C. At the absence of contraindications.
- D. When it is possible to make long-term observation of the patient and closely monitor the condition.
- E. All answers are true.

118. The patient T., 62 years old, complains on pain in the knee joints, which has a starting character and amplifies after a long walk. At the inspection: at bending in the joints crepitation is determined. All the following methods of physiotherapy are indicated, except for:

- A. Ultrasound therapy.
- B. Paraffin- and ozokeritotherapy.
- C. Electrophoresis of novocaine.
- D. Cryotherapy.
- E. Inductotherapy.

119. The patient G., 65 years old, who has overweight, complains on pain in the knee joints, which has a starting character. At the inspection: deformity of the knee joints, limitation of mobility and crackle in them. There are Heberdens` nodules at the distal interphalangeal joints. This condition is characterized with all the following, except:

- A. Pain of "mechanical" nature.
- B. Periodic "block" of joints.
- C. Slow development of the disease.
- D. Prevailing damage of the leg joints and distal interphalangeal hand joints.
- E. Morning stiffness within the hour.

120. The 44-year-old woman, who is suffering on rheumatoid arthritis for 5 years, has been taking NSAIDs constanly. After examination a high degree of disease activity is revealed. The level of RA activity can confirm all the following changes, except:

- A. Laboratory indices of activity.
- B. Intensity of exudative changes in joints.
- C. Absence of systemic manifestations.
- D. Body temperature.
- E. Presence of secondary kidney amyloidosis.

121. The patient L., 44 years old, complains on pain in radiocarpal, carpophalangeal and proximal interphalangeal joints of hands, morning stiffness. She is ill for 5 years. At the inspection: edema, increase of local t, limited mobility of the joints. The roentgenological research of hands: periarticular osteoporosis, narrowing of the articular slits. What laboratory index is the most substantial for determination of the diagnosis:

- A. Increase of blood sedimentation.

- B. Increase of α_2 -globulin.
- C. Presence of CRP in blood serum.
- D. Presence of rheumatoid factor in blood serum.
- E. Increase of leukocyte number and decrease of glucose content in synovial fluid.

122. At the 32-year-old woman, who was suffering on SLE for 5 years, after the stress body temperature increased to 40,0C, pain in the joints and muscles intensified, heartbeating, ecchymoses on the skin of extremities, pain in the epigastric area appeared. The condition was considered as a lupus crisis. At this state all the following is occurred, except:

- A. Sharp increase of titer of antibodies to DNA in blood.
- B. Reduction of complement level in blood.
- C. Hemolytic anemia.
- D. Thrombocytopenia.
- E. Increase of plasma cell number in bone marrow (> 30).

123. The 48-year-old woman complains on pain and restriction of movement in the joints of hands. At the inspection: there are dense nodules 0.5 sm in size in the area of distal interphalangeal joints, moderately painful at the palpation, joints are deformed, mobility is limited. What roentgenological signs of the disease, except one, you expect:

- A. Narrowing of articular slit.
- B. Subchondral osteosclerosis.
- C. Change of articular surfaces of bones.
- D. Ankylosis.
- E. Marginal hypertrophy of articular surfaces.

124. The patient A., 20 years old, complains on fever, severe joint pain, palpitations, breathlessness, edema of the legs and face. At the inspection: lymphadenopathy, papular rash on the cheeks, tachycardia, AP 150/100. In blood: Hb 96 g/l, blood sedimentation 65 mm/hr. In urine: proteinuria 3,3 g/l, microhematuria. What positions, except one, concerning glucocorticoids, should be considered when treating patients with this condition:

- A. Glucocorticoids are first-line drugs.
- B. Glucocorticoids are indicated in the early stages of the disease.
- C. The dose of glucocorticoids should be sufficient for depression of inflammatory process activity.
- D. Duration of treatment often does not exceed 6-8 weeks.

E. At nephrotic syndrome methylprednisolone pulse therapy is indicated.

125. The 20-year-old man complains on "flying" pain in large joints of extremities, palpitations, shortness of breath. Fell ill in two weeks after angina. At the inspection: body t 38,2C, edema of the elbow and knee joints, rhythmic activity of heart, tachycardia, soft systolic murmur on the top. In blood: L 10*10⁹/l, e 1%, s 53%, l 30%, m 4%, blood sedimentation 48 mm/hr., CRP +++.

For this condition all the following is characteristic, except:

- A. Symmetric joint damage.
- B. " Flying" of arthritis.
- C. Rapid improvement after NSAIDs treatment.
- D. Irreversible nature of changes in the joints.
- E. Hyperemia and edema of the joints.

126. The patient B., 46 years old, is suffering on seropositive rheumatoid arthritis with predominant lesion of hands for 6 years. In blood: moderate normochromic anemia, blood sedimentation 45 mm/h; in urine: proteinuria 3,3 g/l. A doctor suspected secondary amyloidosis. More often at this condition occurs secondary amyloidosis of:

- A. Liver.
- B. Intestine.
- C. Kidney.
- D. Adrenal glands.
- E. Heart.

127. The patient A., 30 years old, who is suffering for 5 years, complains on pain in the lumbar area, cervical and thoracic spine at physical activities. At the inspection: body is fixed in the position of forward slope with lowered head, sciatic muscle atrophy. The radiography of the spine: ossification of longitudinal ligaments. Spinal lesion at this disease often begins with:

- A. Cervical.
- B. Lumbar.
- C. Sacroiliac joints.
- D. Thoracic.
- E. All spine.

128. The patient B., 19 years old, who received treatment of urethritis during 1 week at an urologist, and then during 3 days at an oculist with conjunctivitis, started to complain on pain in the ankle and knee joints. Laboratory studies:

increase of CRP, sialic acids. What is typical for this condition:

- A. Gradual start.
- B. Development of the disease mainly in elderly people.
- C. Polyarthritis in the beginning of the disease.
- D. Predominant damage of the lower extremities joints.
- E. Predominant damage of the upper extremities joints.

129. The patient B., 18 years old, in 2 weeks after lacunar tonsillitis started to complain on pain in joints. During exercises felt dizzy. At the inspection: body temperature 37,6C, HR 120, first tone is reduced and systolic noise on the top of heart. What joint damage is the most typical for this condition:

- A. Symmetric arthritis of fine hand and feet joints with development of stable deformities.
- B. Migrating, completely reverse arthritis of large joints.
- C. Sacroilitis.
- D. Arthritis of sternum-clavicular and acromial-clavicular joints.
- E. Lesion of the cervical spine.

130. The patient L., 33 years old, complains on pain in the lumbar, thoracic and cervical spine, accompanied with morning stiffness for more than 1 hour. Pain in the lumbar spine radiates to buttocks. At the inspection: thoracic kyphosis, cervical lordosis, painful palpation of sacro-iliac joints. The radiography: entrance of locking plates by subchondral sclerosis. The most typical for this condition is:

- A. Acute beginning of the disease.
- B. Symmetrical arthritis of peripheral joints.
- C. More frequent involvement of hand joints than feet.
- D. Presence of entezopathy.
- E. Unsymmetrical sacroilitis.

131. The patient T., 22 years old, complains on pain in the lumbar spine, which radiates to the back of the thighs, and also pain in the left shoulder joint. At the inspection: smoothing out of lumbar lordosis, painful palpation of spinous process of the spine, sacro-iliac joints, limited volume of movement in the left shoulder joint. At the NMRT of the spine: initial signs of common osteoarthritis, spinal canal stenosis. The most typical for the described condition is:

- A. Lesion of proximal interphalangeal hand and feet joints.
- B. Lesion of sternum-clavicular joints.
- C. Lesion of radiocarpal joints.

- D. Lesion of intervertebral joints.
- E. Lesion of elbow joints.

132. The patient D., 25 years old, complains on general weakness, subfebrile body temperature, dyspnea, pain in joints, weightloss, paleness of hands in the cold. At the inspection: dense edema of skin face. In blood: moderate anemia, blood sedimentation 24 mm/hr. Indicate what lesion of the gastrointestinal tract is the most typical for this condition:

- A. Violation of solid food swallowing.
- B. Violation of liquids swallowing.
- C. Diarrhea with tenesmus.
- D. Sense of overflow in the epigastric area, food vomiting.
- E. Increase of liver, dropsy.

133. The patient K., 45 years old, complained on severe pain in the I metatarsal phalangeal joint of right foot, fever. On the eve took alcohol and ate meat dishes. At the inspection: body t 38,3C, redness over the joint and edema of soft tissues. What factor is the most credible cause of joint damage at this state:

- A. Formation of immune complexes and their deposition in synovial membrane.
- B. Violation of cartilage metabolism.
- C. Damage of synovial membrane by infectious agents.
- D. Excessive formation of calcii pyrophosphate crystals in synovial fluid.
- E. Excessive formation of urate crystals in synovial fluid.

134. The patient R., 40 years old, entered the internal medicine unit with complaints on edema of face and shins, strong weakness. In the anamnesis: rheumatoid arthritis was diagnosed 4 years ago. At the inspection: AP 90/60. In blood: Hb 115 g/l, blood sedimentation 50 mm/h; in urine: protein 4,2 g/l, L 6-8, hyaline cylinders 4-5 in sight. What research is it necessary to conduct for diagnostics of the complication:

- A. Kidney biopsy.
- B. Excretory urography.
- C. Isotopic renography.
- D. Ultrasound research of kidneys.
- E. Ultrasound research of adrenal glands.

135. The patient T., 24 years old, complains on pain in the lumbar spine, which radiates to the back of the thighs. At the inspection: smoothing out of lumbar lordosis, painful palpation of spinous process of the spine, sacro-iliac joints.

What are the most credible changes at the roentgenologic research:

- A. Areas of vertebrae osteolysis.
- B. Osteophytes of vertebral bodies.
- C. Osteoporosis of vertebrae that look like "fish".
- D. Ankylosis of sacro-iliac joints, ossification of lateral areas of intervertebral discs.
- E. Narrowing of intervertebral slits, subchondral sclerosis.

136. The patient R., 45 years old, entered the internal medicine unit with complaints on edema of face and shins, strong weakness. In the anamnesis: rheumatoid arthritis was diagnosed 5 years ago. In blood: Hb 115 g/l, blood sedimentation 50 mm/h; in urine: protein 4,2 g/l, L 6-8, hyaline cylinders 4-5 in sight. About what complication of the disease it follows to think:

- A. Renal veins thrombosis.
- B. Secondary kidney amyloidosis.
- C. Tuberculosis of kidneys.
- D. Glomerulonephritis.
- E. None of these complications.

137. The patient G., 42 years old, complains on pain and morning stiffness in the hand joints. At the inspection: edema of interphalangeal and carpophalangeal joints, hot at touching, volume of movements is significantly reduced. In blood: L $8,6 \cdot 10^9/l$, blood sedimentation 45 mm/h, CRP ++++. Which of the specified changes can probably be detected at laboratory and instrumental examination:

- A. Antistreptolysin-O in high titres.
- B. Osteolysis of ungual phalanx at the roentgenographic research.
- C. Rheumatoid factor in high titres.
- D. Hyperuricemia.
- E. Marginal osteophytes at the roentgenographic research.

138. The patient T., 37 years old, complains on breathlessness and palpitation during exercise. He has been sick from 10 years old age, when suffered on acute polyarthritis. At the auscultation: amplified I tone on the top, presystolic murmur, accent of II tone on pulmonary artery. At the radiography of chest cavity: mitral heart configuration. Which of the hemodynamic parameters has the major significance in the diagnostics of this condition:

- A. Pressure in the pulmonary artery.
- B. Pressure in the left atrium.
- C. Pressure in the right ventricle.

- D. Pressure gradient between the left atrium and diastolic pressure in the left ventricle.
- E. Pressure in the right atrium.

139. The 20-year-old man complains on pain in large joints, fever, palpitations, shortness of breath. Fell ill in two weeks after acute otitis. At the inspection: body t 38,4C, tachycardia, soft systolic murmur on the top. In blood: L $10 \cdot 10^9/l$, e 1%, s 53%, l 30%, m 4%, blood sedimentation 42 mm/hr., CRP ++++. The major criteria of this condition are all the following, except:

- A. Carditis.
- B. Minor chorea.
- C. Circular erythema.
- D. Nodular erythema.
- E. Subcutaneous nodules.

140. The 23-year-old boy is hospitalized with pulmonary edema. In the anamnesis: angina 3 weeks ago. At the inspection: edema of face, shins, AP 180/100. In urine: specific weight 1022, protein 1,32 g/l, erythrocytes cover all the eyeshot. Specify the most credible diagnosis:

- A. Acute glomerulonephritis.
- B. Systemic lupus erythematosus.
- C. Goodpasture syndrome.
- D. Nodular polyarteritis.
- E. Microscopic polyangitis.

141. The patient T., 72 years old, is complaining on pain and crepitation during movement in the knee joints during ten years. At the inspection: body weight is 102 kg, height 162 cm, deformation and restriction of mobility of the knee joints. Which factor is the cause of the joint damage in this case:

- A. Formation of immune complexes and their deposition in synovial membrane.
- B. Violation of cartilage metabolism.
- C. Damage of synovial membrane by infectious agent.
- D. Excessive formation of urate crystals and deposition in synovial fluid.
- E. Excessive formation of pyrophosphate crystals and deposition in synovial fluid.

142. At the 20-year-old girl after viral infection subfebrile temperature, weightloss, erythema and edema around the eyes, muscular weakness and myalgia of proximal muscles of pelvic and shoulder girdle first appeared. What

clinical feature is obligatory at this state:

- A. Pain in muscles.
- B. Muscular weakness.
- C. Edema of muscles.
- D. Reduce of tendinous reflexes.
- E. Formation of muscular contractures.

143. The patient M., 27 years old, complains on pain in the ankle joints, increase of body temperature to 38C, feeling of sand in the eyes and lacrimation, dysuria. At the inspection: increase of the ankle joint volume, restricting mobility in them. Name the most informative diagnostic confirmation method:

- A. Definition of rheumatoid factor in blood.
- B. Positive effect of tentative prescribing of antibiotics.
- C. Determination of antichlamidial antibodies in blood.
- D. Determination of chlamydia in the smear from urethra.
- E. The X-ray research of sacro-iliac joints.

144. The 47-year-old patient entered the hospital with attack of renal colic, relapsing during year. At the inspection: there are nodules in the area of ear and right elbow joint, which are covered with a thin shiny skin. The level of uric acid in blood is significantly increased. A doctor appointed allopurinol. How long the patient should take this drug:

- A. To normalization of the uric acid level in blood.
- B. During the whole of life.
- C. Six months.
- D. Year.
- E. Courses of treatment.

145. The patient B., 20 years old, fell ill in 2 weeks after angina, when fever, severe pain, edema of the right and then left knee joints appeared, in a week-the same symptoms in the ankle added. In blood: leukocytosis, increased blood sedimentation, ASL 0,600 units. Name the causative factor of this condition:

- A. Hemolytic streptococcus group B.
- B. Streptococcus viridans.
- C. Staphylococcus aureus.
- D. Hemolytic streptococcus group A.
- E. All answers are not true.

146. The 33-year-old patient complains on pain in the joints, paresthesia,

numbness of finger tips of hands, difficulty in speaking. In the anamnesis: during 3 years she was getting medical treatment in connection with Raynaud's disease without effect. Recently, skin changes appeared. What skin lesions are characteristic for the given state:

- A. Soft edema of face and lower limbs.
- B. Periorbital edema with erythema in the form of "glasses".
- C. Vesical and bullous rash on the body.
- D. Massive edema and induration of face, hands and shins.
- E. Cold and blue fingers of hands and feet.

147. The patient M., 28 years old, complains on reduce of body weight, hairloss, stable, permanent fever, pain in the hand joints, shortness of breath, palpitations. At the inspection: increase of cervical, axillary lymphatic nodes, tachycardia. In blood: anemia, leukopenia, thrombocytopenia and significant increase of blood sedimentation. What skin lesion is characteristic for the described state:

- A. Alopecia, cheilitis.
- B. Hyperpigmentation, angiotelectasia.
- C. Periorbital edema with erythema in the form of "glasses".
- D. Vesical and bullous rash on the body.
- E. Massive edema and induration of face, hands and shins.

148. The patient T., 50 years old, complains on subfebrile body temperature, pain in joints, weight loss, significant shortness of breath, cough, paleness of fingers at supercooling. At the inspection: dense edema of face and hands skin. Indicate, which of the specified respiratory lesion is the most typical for this condition:

- A. Cystic lungs.
- B. Pulmonary sarcoidosis.
- C. Diffuse pneumosclerosis.
- D. Obstructive syndrome.
- E. Secondary bronchiectasis.

149. The patient M., 21 years old, who received treatment of urethritis during 1 week at an urologist, and then during 3 days at an oculist with conjunctivitis, started to complain on pain in the ankle and knee joints. What etiological factors, except one, may be the cause of this disease:

- A. Chlamydia.
- B. Yersinia.
- C. Salmonella.
- D. Shigella.

E. Gonococcus.

150. The patient G., 42 years old, complains on pain and morning stiffness in joints, subfebrile temperature. In blood: L 6,6*10⁹/l, blood sedimentation 45 mm/h, CRP +++, reaction Vaaler-Rose 1:128. What joint damage is the most typical for this condition:

- A. Sacroilitis and spine.
- B. Knee and coxofemoral.
- C. Carpophalangeal and proximal interphalangeal.
- D. Three progressive finger joints of hand.
- E. Phalangeal joint of the big toe.

151. The patient T., 26 years old, complains on numbness and paleness of fingers, arising in the cold. Her mother has the same manifestations of the disease. The general condition is satisfactory. The analyses of blood and urine are unchanged. Microscopy of unguial bed is normal. About what disease it follows to think:

- A. Raynaud's disease.
- B. SLE.
- C. Systemic sclerosis.
- D. Nodular polyarteritis.
- E. Rheumatoid arthritis.

152. The patient M., 27 years old, complains on numbness and paleness of fingers, arising in the cold. Smokes ½ pack per day. His mother has the same manifestations of the disease. The general condition is satisfactory. The analyses of blood and urine are unchanged. Microscopy of unguial bed is normal. What are the general recommendations to the patient:

- A. Avoid vasoconstrict drugs (beta blockers, ergotamin).
- B. Avoid cold and sudden temperature changes.
- C. Dress warmly in cold weather.
- D. Stop smoking.
- E. All answers are true.

153. The patient M., 24 years old, in a week after influenza began to feel aching pain in the heart area, heartbeating and arrhythmia, shortness of breath. At the inspection: reduced heart tones, arrhythmic activity due to frequent ventricular extrasystoles, HR 110 for 1 min. Laboratory results: increase of CRP, blood sedimentation, activity of creatinphosphokinase. Specify the most credible

diagnosis:

- A. Acute myocardial infarction.
- B. Acute viral myocarditis.
- C. Acute rheumatic fever.
- D. SLE.
- E. Dystonia.

154. The 36-year-old patient is suffering on chronic rheumatic heart disease for 14 years. At the heart auscultation: rhythmic activity, amplified I tone on the top, presystolic noise, accent of II tone on pulmonary artery. At the EchoCS hypertrophy and dilation of left atrium and right ventricle are determined. What is the ECG sign of left atrial hypertrophy at this state:

- A. Appearance of split wave P in the I, II, AVL, V5-V6 leads.
- B. Significant increase of amplitude and duration of the second negative phase of wave P in the V1 lead.
- C. Increase of internal deviation time of wave P more than 0.06 sec.
- D. D All answers are true.
- E. Increase of terminal index area.

155. The patient T., 72 years old, during ten years is complaining on pain and crepitation during movement in the knee joints. At the inspection: body weight is 102 cg, height 162 sm, deformation and restriction of mobility of the knee. The underlying cause of this condition:

- A. Destruction of articular cartilage.
- B. Inflammation of synovial membrane.
- C. Osteoporosis.
- D. Immune reaction.
- E. Injury of joints.

156. The 47-year-old patient entered the hospital with attack of renal colic, relapsing during year. At the inspection: there are nodules in the area of ear and right elbow joint, which are covered with a thin shiny skin. What is the described nodules:

- A. Vegetation of connective tissue.
- B. Vegetation of bone tissue.
- C. Depositing of limestone salt.
- D. Inflammation of granulomatous origin.
- E. Depositing of urine acid salts under the skin.

157. The patient G., 65 years old, who has overweight, complains on pain in the knee joints, which has a starting character. At the inspection: deformity of the knee joints, limitation of mobility and crackle in them. There are Heberdens` nodules at the distal interphalangeal joints. What are risk factors for this condition:

- A. Mechanical load of the joints.
- B. Heredity.
- C. Hypothermia.
- D. Obesity.
- E. All answers are true.

158. At the patient S., 32 years old, who suffered on polyarthritis in childhood, during examination a long diastolic noise in the II intercostal area at the right and V point was revealed. What changes of arterial pressure are expected in this case:

- A. AP is unchanged.
- B. Increase of systolic and diastolic pressure.
- C. Decrease of systolic and diastolic pressure.
- D. Increase of systolic and decrease of diastolic pressure.
- E. Decrease of systolic and increase of diastolic pressure.

159. The patient M., 24 years old, in a week after influenza began to feel aching pain in the heart area, heartbeating and arrhythmia, shortness of breath. At the inspection: reduced heart tones, arrhythmic activity due to frequent ventricular extrasystoles, HR 110 for 1 min. Laboratory results: increase of CRP, blood sedimentation, activity of creatinphosphokinase. How long will last the dyspensary supervision of the patient:

- A. 1-2 months.
- B. Up to 1 year.
- C. 2-3 years and more.
- D. There is no need for the dyspensary supervision.
- E. If it is necessary.

160. At the patient S., 32 years old, who suffered on polyarthritis in childhood, during examination a diastolic noise in the II intercostal area at the right and V point was revealed. Specify the optimal body position during auscultation of noise at this state:

- A. Horizontal position in the phase of inspiration.
- B. Horizontal position in the phase of expiration.
- C. Vertical.

- D. Sitting with forward slope in the phase of expiration.
- E. Sitting with forward slope in the phase of inspiration.

161. The patient G., 27 years old, who suffered on polyarthritis in childhood, came to visit a doctor with complaints on breathlessness, palpitations at exercise. At the inspection: tachycardia, amplified I tone on the top, presystolic noise, accent of second tone on pulmonary artery. Specify the optimal body position during auscultation of noise at this state:

- A. Vertical.
- B. Sitting with forward slope.
- C. Horizontal.
- D. Horizontal with a slope to the left.
- E. Horizontally with a slope to the right.

162. The patient L., 75 years old, complains on pain in the knee and hip joints, which has a starting character. At the inspection: deformity of the knee joints, limitation of mobility and crackle in them, movements in the hip joint are also limited. What are the main causative factors of this condition:

- A. Congruence disturbance of articular cartilage surfaces.
- B. Metabolic disorders.
- C. Nonspecific inflammation of joints.
- D. Functional overloading of joints.
- E. All of the factors.

163. The patient H., 32 years old, who suffered on acute rheumatic fever in childhood, complained during the last 5 weeks on shortness of breath at physical exertion, fever with chills. At the inspection: body t 38,5C, diastolic noise in the II intercostal area at the right and V point; enlarged liver (2 sm), painful at the palpation spleen. In blood: anemia, leukopenia, blood sedimentation 60 mm/hr. At the echocardiogram: large vegetations on the aortic valve. What are the indications for surgical treatment (prosthetic of valve) at this state:

- A. Septicemia.
- B. Decompensation of heart.
- C. Absence of effect of antibiotic therapy within 4-8 weeks.
- D. Vegetations on the valves (at the EchoCS).
- E. Thromboembolism.

164. The 49-year-old man complains on sharp pain in the left metatarsal palangeal joint of the big toe. At the inspection: body t 38.8C, edema of the joint,

expressed hyperemia of the skin. The roentgenological research: "stamped" defects of epiphyses. What is the basis of this attack:

- A. Violation of purine metabolism.
- B. Violation of carbohydrate metabolism.
- C. Aseptic inflammation with violation of purine metabolism.
- D. Violation of electrolyte exchange.
- E. Violation of pH-environment.

165. The 43-year-old patient entered the hospital with attack of renal colic, relapsing during year. At the inspection: there are nodules in the area of ear, which are covered with a thin shiny skin. What factors contribute to the development of this disease:

- A. Hereditary.
- B. All listed factors.
- C. Excessive exercise.
- D. Abuse of fatty meal.
- E. Use of alcohol.

166. The 40-year old patient, who suffered on acute rheumatic fever in childhood, complained on breathlessness, hemoptysis. At the inspection: acrocyanosis, bounds of heart are displaced to the left and up, cardiac arrhythmia, amplified I tone on the top, tone of mitral valve opening, accent of II tone on pulmonary artery. What caused hemoptysis:

- A. Thromboembolism of pulmonary artery.
- B. Exacerbation of rheumatic process.
- C. Hypostatic pneumonia.
- D. Hypertension and stagnation in a small circle of blood circulation.
- E. All the reasons are true.

167. The 45-year-old man complains on sharp pain in the left metatarsal phalangeal joint of the big toe. At the inspection: body t 38,8C, edema, hyperemia of skin over the joint. There is a high level of uric acid in blood. What can cause the increase of uric acid level in blood:

- A. Cooling.
- B. Radiation therapy.
- C. Excessive exercise.
- D. Eating a lot of fat.
- E. All answers are true.

168. The patient S., 23 years old, complains on fever, severe joint pain, palpitations, breathlessness, edema of the legs and face. At the inspection: lymphadenopathy, erythema as a "butterfly" on the cheeks and nose, tachycardia, AP 150/100. In blood: anemia, leukopenia, blood sedimentation 65 mm/hr. In urine: proteinuria 3,3 g/l, microhematuria. Equivalent to "butterfly" at this disease is:

- A. Capillaritis on the palms.
- B. Ulcers on the shins.
- C. Ulcers in the mouth.
- D. Circular erythema.
- E. Vitiligo.

169. The patient V., 25 years old, is suffering on SLE and taking supporting dose of prednisolone for 6 years. Name the most frequent side effects of prolonged use of GC:

- A. Osteoporosis.
- B. Inhibition of adrenal cortex function.
- C. Activation of infection.
- D. Myopathy.
- E. All answers are true.

170. The patient T., 20 years old, complains on piercing pain in the area of heart, which increases during exercise. At the inspection: asthenic constitution, height 182 sm, weight 68 cg, at the auscultation systolic clicks and systolic murmur that grows to II tone are determined. How can be complicated the specified condition:

- A. Thromboembolism of pulmonary artery.
- B. Rupture of chordae.
- C. Migrain.
- D. Infective endocarditis.
- E. All answers are true.

171. At the 46-year-old man there are relapsing attacks of sharp pain in metatarsal phalangeal joints of big toes, which are accompanied with fever, hyperemia of skin, edema of soft tissues. In blood: high level of uric acid. A doctor has appointed kolhicyn. What are the possible complications at taking kolhicyn:

- A. Nausea, vomiting.
- B. Diarrhea, abdominal pain.

- C. Rash.
- D. All answers are true.
- E. Leukopenia.

172. The patient S., 19 years old, complains on piercing pain in the area of heart, dyspnea during exercise. At the inspection: asthenic constitution, height 184 sm, weight 65 cg, at the auscultation of the top of heart systolic clicks and systolic murmur that grows to II tone are determined. What deviation in the structure of the skeleton may be observed at this state:

- A. Arachnodactyly.
- B. Gothic palate.
- C. Flatfoot.
- D. All answers are true.
- E. Scoliosis.

173. At the patient Z., 25 years old, in a week after viral infection fever, weightloss, hemorrhagic-purulent discharges from nose, cough, hemoptysis appeared. At the roentgenological research of lungs: multiple bilateral infiltrates with dissociation; in urine: proteinuria, in blood: increased level of creatinine. Name the most credible diagnosis:

- A. Wegener's granulomatosis.
- B. Microscopic polyangilitis.
- C. SLE.
- D. Behcet`s syndrome.
- E. Gangrenous granuloma of face.

174. The patient M., 24 years old, in a week after influenza began to complain on rapid fatigue, long-lasting feeling of pressure on the breast, shortness of breath. At the inspection: reduced I tone, systolic murmur on the top, HR 90 for 1 min. Laboratory results: increased blood sedimentation, content of CRP and activity of creatinphosphokinase. At the ECG: AV block of I degree. What are the possible complications at this state:

- A. Acute heart failure.
- B. Cardiogenic shock.
- C. AV block of II degree.
- D. Complete AV block.
- E. All answers are true.

175. The patient M., 25 years old, complained on pain in the right ankle and left

knee joint. In the anamnesis: treatment of urethritis during 1 week at an urologist, and then during 3 days at an oculist with conjunctivitis. What is the most important diagnostic feature of this condition:

- A. Presence of heel spurs, defiguration of toes.
- B. Patients, who has antigen HLA B 27.
- C. Negative test on rheumatoid factor.
- D. Damage of nails.
- E. Sacroilitis, spondylitis.

176. At the examination of K., 50 years old, who entered the rheumatological department for clarifying of the arthritis character, nephrolithiasis was found. What arthritis is often combined with nephrolithiasis:

- A. Rheumatoid.
- B. Gouty.
- C. Psoriatic.
- D. Osteoarthritis.
- E. Rheumatic.

177. At the patient L., 28 years old, in a week after viral infection fever, arthralgia, hemorrhagic-purulent discharges from nose, cough, shortness of breath appeared. Consultation of an otolaryngologist: ulcer-necrotic rhinitis, serous media otitis. The roentgenological research of lungs: multiple bilateral infiltrates with dissociation. In blood: normochromic anemia, increased blood sedimentation and content of CRP; in urine: proteinuria, microhematuria. What sign is not specific for this disease:

- A. Development of the disease at the age till 30.
- B. Purulent sinusitis.
- C. Infiltrates in the lungs.
- D. Detection of antibodies to neutrophil cytoplasm.
- E. Detection of antinuclear factor.

178. The patient S., 23 years old, complains on fever, sharp pain in the hand joints, palpitations, breathlessness, edema of the legs and face. At the inspection: erythema as a "butterfly" on the cheeks and nose, tachycardia, AP 150/100. In blood: anemia, leukopenia, thrombocytopenia, blood sedimentation 65 mm/hr. In urine: proteinuria 3,3 g/l, microhematuria. The most important diagnostic test is:

- A. Increase of blood sedimentation.
- B. Determination of antibodies to DNA.
- C. Increase of fibrinogen, alpha-2 and gamma- globulins.

- D. Presence of LE-cells.
- E. Presence of CIC in blood serum.

179. The patient P., 38 years old, who suffered on polyarthritis in childhood, addressed to a doctor with complaints on breathlessness, palpitations during physical exertion, long-lasting pressing pain at sternum. At the inspection: tachycardia, amplified I tone on the top, presystolic noise, accent of second tone on pulmonary artery. Name the cause of stenocardia at the patient:

- A. Left atrial dilatation.
- B. Dilatation of pulmonary artery.
- C. Relative coronary insufficiency of right ventricle.
- D. All answers are true.
- E. Compression of left coronary artery with enlarged left atrium.

178. At the 24-year-old girl after viral infection subfebrile temperature, paraorbital erythema and edema, myalgia, significant muscular weakness of limbs first appeared. What is the criteria of this disease:

- A. Weakness in proximal muscle groups of the extremities and trunk.
- B. Increase of the creatinphosphokinase level.
- C. Signs of systemic inflammation.
- D. All answers are true.
- E. Inflammatory infiltration of skeletal muscles with degeneration and necrosis.

179. The patient L., 33 years old, complains on pain in the lumbar, thoracic and cervical spine, accompanied with morning stiffness for more than 1 hour. Pain in the lumbar area radiates to buttocks. At the inspection: painful palpation of sacroiliac joints. At the radiography: compression of locking plates due to subchondral sclerosis. What kind of bearing is observed at this state:

- A. Pose of requestor.
- B. Thoracic kyphosis.
- C. Scoliosis.
- D. Ironing board.
- E. Absence of kyphosis.

180. The patient G., 19 years old, in 2 weeks after angina started to complain on pain in joints. At the inspection: body temperature 37,4C, HR 110, reduced first tone and systolic noise on the top. What are the features of carditis at this disease:

- A. Acute or subacute beginning.
- B. Frequent detection of endopericarditis.

- C. All answers are true.
- D. Positive dynamics of clinical and paraclinical characteristics influenced on penicillinotherapy.
- E. Chronological connection with acute streptococcal infection.

181. At the patient R., 39 years old, who suffered on acute rheumatic fever in childhood, during examination pale skin, systolic thrill and rough systolic murmur on the aorta, which is held on the vessels of neck were found. At the ECG: left ventricular hypertrophy. What are the most frequent complaints observed at the described condition:

- A. Pain in the right intercostal area.
- B. Noise and pulsation in the head.
- C. Dizziness and loss of consciousness during exercise.
- D. Heartbeating.
- E. Attacks of stenocardia.

182. The 21-year old girl is suffering on systemic lupus erythematosus. After influenza situation sharply became worse. Stable hyperthermia, dyspnea, tachycardia, proteinuria of nephrotic level, microhematuria, AH appeared. What drug of choice at the SLE patients with nephrotic syndrome will you appoint:

- A. Cyclophosphamide.
- B. 6 merkaptopurin.
- C. Metatreksat.
- D. Hlorbutin.
- E. Tiofosfamid.

183. At the patient, 25 years old, after virus fever, arthralgia, hemorrhagic-purulent discharges from nose, cough, hemoptysis, shortness of breath appeared. Consultation of an otolaryngologist: ulcer-necrotic rhinitis, media otitis. The roentgenological research of lungs: multiple bilateral infiltrates with dissociation. In blood: normochromic anemia, increased blood sedimentation and level of CRP. In the analysis of urine: proteinuria, microhematuria. What statement is true for this condition

- A. Destruction of tissues of upper and lower respiratory tracts.
- B. Presence of granulomatous vasculitis.
- C. All answers are true.
- D. Detection of antibodies to neutrophil cytoplasm.
- E. All answers are not true.

184. The patient R., 21 years old, complains on fever, severe headache, polyarthralgia, palpitations, breathlessness, edema of the legs and face. At the inspection: icteric skin, erythema as a "butterfly" on the cheeks and nose; tachycardia, systolic murmur on the top, AP 150/100. In blood: anemia, leukopenia, thrombocytopenia, blood sedimentation 60 mm/hr. In urine: proteinuria 6,3 g/l, microhematuria. What is the most disadvantageous prognostic clinical manifestation at this condition:

- A. Hematologic crisis.
- B. Libman-Saks endocarditis.
- C. Nephritis.
- D. Exudative pleurisy.
- E. Damage of nervous system.

185. The 46-year old patient within 20 years is suffering on chronic rheumatic heart disease. At the heart auscultation: rhythmic activity, amplified I tone, protodiastolic noise on the top, accent of II tone on pulmonary artery. At the ECG: left atrial and right ventricle hypertrophy. Protodiastolic noise at this valvular defect appears:

- A. Before the II tone.
- B. Immediately after the II tone.
- C. Immediately after tone of mitral valve opening.
- D. Between the I and II tones.
- E. Before the I tone.

186. The 21-year old girl was suffering on systemic lupus erythematosus. After influenza situation sharply became worse. Stable hyperthermia, dyspnea, tachycardia, proteinuria of nephrotic level, microhematuria, AH appeared. Cyclophosphamide was appointed. What complications are the most frequent and difficult at taking cytostatics at the patient with the described state:

- A. Bacterial pneumonia.
- B. Alopecia.
- C. Leukopenia.
- D. Inhibition of ovulation.
- E. Herpes zoster.

187. 5 weeks after hypothermia a 22-year- old patient developed fever, weakness, muscle pain, inability to move independently. Objectively: tenderness, induration of shoulder and shin muscles, restricted active movements, erythema

on the anterior surface of the chest. There is a periorbital edema with heliotropic erythema. Gottron's sign is present. What investigation is required for the diagnosis verification?

- A. Muscle biopsy
- B. Aminotransferase activity
- C. Pneumoarthrography
- D. ASO titer
- E. Rheumatoid factor

188. A 23-year-old man complains of facial edema, headache, dizziness, low urinary output, urine discoloration (dark red). These complaints arose after the patient had had a case of acute tonsillitis. On examination there are facial edema, the skin is pale, temperature is 37.4°C; heart rate is 86/min., blood pressure is 170/110 mm Hg. Heart sounds are muffled, the II heart sound is accentuated over the aorta. What etiological factor is the most likely in this case?

- A. Streptococcus pyogenes
- B. Staphylococcus aureus
- C. Streptococcus viridans
- D. Beta-hemolytic streptococcus
- E. Staphylococcus saprophyticus

189. An 18-year-old young man complains of pain in his knee and elbow joints and body temperature up to 39.5°C. One week and a half earlier developed sore throat. On examination his body temperature is 38.5°C. Swelling of the knee and elbow joints is observed. Pulse is 106/min., rhythmic. Blood pressure is 90/60 mm Hg. Cardiac borders are unchanged, heart sounds are weakened, at the cardiac apex there is soft systolic murmur. What factor would be the most indicative of the likely disease etiology?

- A. Rheumatoid factor
- B. C-reactive protein
- C. Creatine kinase
- D. Seromucoid
- E. Anti-streptolysin O

190. A 25-year-old patient is not married and has sexual relations with several partners. During the last 3 months he noticed small amount of mucoserous secretions produced from urethra. Subjectively: periodical itching or burning pain in urethra. Two months ago pain in knee joint developed. Possibility of trauma or exposure to cold is denied by the patient. During the last week eye

discomfort is noted - lacrimation and itching. What provisional diagnosis can be suggested?

- A. URTI with conjunctiva and joints affected
- B. Rheumatoid arthritis
- C. Seasonal pollinosis
- D. Bacterial nonspecific urethral conjunctivitis
- E. Reactive arthritis

191. A 59-year-old woman was brought into the rheumatology unit. Extremely severe case of scleroderma is suspected. Objectively she presents with malnourishment, "mask-like" face, and acro-osteolysis. Blood: erythrocytes - $2.2 \times 10^9/L$, erythrocyte sedimentation rate - 40 mm/hour. Urine: elevated levels of free oxyproline. Name one of the most likely pathogenetic links in this case:

- A. Formation of antibodies to collagen
- B. Formation of antibodies to native DNA
- C. Formation of antibodies to blood corpuscles
- D. Formation of antibodies to transversely striated muscles
- E. Formation of antibodies to vessel wall

192. A 26-year-old woman is suspected to suffer from systemic lupus erythematosus due to systemic lesions of skin, vessels, joints, serous tunics, and heart that developed after photosensitization. The following is detected: LE cells, antibodies to native DNA, isolated anti-centromere antibodies, rheumatoid factor is 1:100, Wassermann reaction is positive, circulating immune complex is 120 units. What immunological indicators are considered to be specific to this disease?

- A. Immunoglobulin A
- B. Rheumatoid factor
- C. Anti-centromere antibodies
- D. DNA antibodies
- E. Increased circulating immune complex

193. A 23-year-old man complains of facial edemas, headache, dizziness, low urinary output, and urine discoloration (dark red). These complaints arose after a case of acute tonsillitis. On examination there are facial edemas, the skin is pale, temperature is $37.4^{\circ}C$; heart rate is 86/min., blood pressure is 170/110 mm Hg. Heart sounds are muffled, the II heart sound is accentuated over the aorta. What etiological factor is the most likely in this case?

- A. Streptococcus pyogenes

- B. *Staphylococcus aureus*
- C. *Streptococcus viridans*
- D. Beta-hemolytic streptococcus
- E. *Staphylococcus saprophyticus*

194. An 18-year-old young man complains of pain in his knee and elbow joints and body temperature up to 39.5°C. One week and a half earlier he developed sore throat. On examination his body temperature is 38.5°C. Swelling of the knee and elbow joints is observed. Pulse is 106/min., rhythmic. Blood pressure is 90/60 mm Hg. Cardiac borders are unchanged, heart sounds are weakened, at the cardiac apex there is a soft systolic murmur. What factor would be the most indicative of the likely disease etiology?

- A. Creatine kinase
- B. C-reactive protein
- C. Anti-streptolysin O
- D. Rheumatoid factor
- E. Seromucoid

195. A 40-year-old man with Bekhterev disease (ankylosing spondylitis) complains of elevated body temperature up to 37.8°C, back pain and stiffness, especially observed during the second half of the night. This condition has been lasting for 2 years. Objectively: reduced spinal mobility, painful sacroiliac joint, erythrocyte sedimentation rate - 45 mm/hour. X-ray shows narrowing of the intervertebral disc space and of the sacroiliac joint. What eye pathology is often associated with this type of disease progression?

- A. Blepharitis
- B. Retinal detachment
- C. Cataract
- D. Optic nerve atrophy
- E. Iridocyclitis

196. For three years a 31-year-old woman has been complaining of pain and swelling of her radiocarpal and metacarpophalangeal articulations and their reduced mobility in the morning, which persisted up to 1.5 hours. Two weeks ago she developed pain, swelling, and reddening of her knee joints, her body temperature increased up to 37.5°C. The treatment was untimely. Examination of the internal organs revealed no pathologic alterations. Diagnosis of rheumatoid arthritis was made. What changes are most likely to be visible on the arthrogram?

- A. Epiphyseal osteolysis

- B. Joint space narrowing, subchondral osteosclerosis
- C. Cysts in the subchondral bone
- D. Numerous marginal osteophytes
- E. Joint space narrowing, usuration

197. A 55-year-old woman complains of pain and popping sounds in her left knee joint, which occur when she climbs the stairs. Occasionally during movements her joint becomes "stuck". 5 years ago she suffered a trauma of her left knee. Complete blood count and biochemical blood analysis show normal results. X-ray shows marked osteosclerosis and osteophytes. The joint space is narrowed. Make the provisional diagnosis:

- A. Osteoarthritis
- B. Rheumatoid arthritis
- C. Gouty arthritis
- D. Psoriatic arthritis
- E. Reactive arthritis

198. A 27-year-old man complains of pain in his leg joints, purulent discharge from the eyes, and painful burning sensations during urination. Disease onset was acute. He has a history of influenza. The patient smokes and drinks alcohol in excess. In his line of work he is often away on business trips. What is the most likely etiological factor of this disease?

- A. Chlamydia
- B. Adenovirus
- C. Streptococci
- D. Staphylococci
- E. Candida

199. After the celebratory feast that took place the day before, a 35-year-old man was hospitalized with complaints of marked pain within the I metatarsophalangeal articulation on the right, which developed late in the night, and impaired walking. Objectively: the metatarsophalangeal articulation is swollen, hyperemic, hot to touch, painful on movement. In blood: erythrocytes - $5,1 \cdot 10^{12}/l$, Hb- 155 g/l, leukocytes- $13,0 \cdot 10^9 /l$, ESR- 50 mm/hour, CRP- 46 mg/dl, uric acid - 720 $\mu\text{mol}/l$. X-ray of feet articulations: osteoporosis, narrowing of interarticular spaces, numerous punched- out erosions. Make the preliminary diagnosis:

- A. Psoriatic arthritis
- B. Osteoarthritis

- C. Reactive arthritis
- D. Rheumatoid arthritis
- E. Gout

200. A 55-year-old woman, a cook, complains of pain in her right knee joint that has been troubling her for a month and intensifies in the evening. Objectively she is overweight, the knee joint is swollen, creaks during movement, palpation reveals localized pain. The 1st metatarsophalangeal articulation is deformed on the both feet. No changes in blood and urine are detected. What should be visible on the patient's X-ray?

- A. Joint space narrowing, multiple usurations, subluxations
- B. Osteoporosis, joint space narrowing, singular usurations
- C. Joint space narrowing, marginal osteophytes
- D. Epiphyseal erosions, bony ankylosis
- E. Joint space narrowing, round bone defects

Standarts of true answers

№ of task	True answer	№ of task	True answer	№ of test task	True answer	№ of task	True answer
1	C	51	B	101	B	151	E
2	E	52	A	102	A	152	B
3	A	53	A	103	D	153	E
4	D	54	D	104	D	154	A
5	C	55	D	105	D	155	E
6	E	56	A	106	E	156	E
7	A	57	A	107	A	157	D
8	C	58	A	108	E	158	B
9	D	59	A	109	B	159	D
10	C	60	E	110	C	160	D
11	D	61	A	111	A	161	E
12	B	62	B	112	A	162	C
13	A	63	A	113	A	163	C
14	A	64	C	114	A	164	B
15	E	65	A	115	D	165	E
16	B	66	A	116	E	166	E
17	C	67	B	117	D	167	A
18	D	68	A	118	E	168	E
19	E	69	C	119	E	169	E
20	A	70	A	120	D	170	D
21	A	71	D	121	E	171	D
22	A	72	B	122	C	172	A
23	D	73	C	123	D	173	E
24	B	74	B	124	D	174	A
25	B	75	E	125	C	175	B
26	C	76	A	126	C	176	E
27	A	77	A	127	D	177	B
28	A	78	D	128	B	178	D
29	A	79	A	129	D	179	A
30	B	80	A	130	D	180	C
31	D	81	E	131	A	181	C
32	A	82	A	132	E	182	A
33	C	83	A	133	A	183	C
34	E	84	A	134	D	184	A
35	A	85	E	135	B	185	C
36	E	86	A	136	C	186	A
37	D	87	B	137	A	187	A
38	C	88	A	138	D	188	D
39	B	89	E	139	A	189	E
40	E	90	A	140	B	190	E
41	A	91	C	141	B	191	A
42	A	92	E	142	D	192	D
43	A	93	A	143	B	193	D
44	A	94	E	144	D	194	C
45	D	95	C	145	D	195	E
46	A	96	D	146	A	196	E
47	A	97	A	147	C	197	A
48	B	98	D	148	E	198	A
49	B	99	C	149	C	199	E
50	A	100	E	150	A	200	C

Recommended literature

Basic

1. Kumar and Clark Clinical Medicine, 10th edition, 2020.
2. Harrison's Principles of Internal Medicine by Longo et al.: Volumes 1 and 2, 20th Edition, 2018.
3. Davidson's Principles and Practice of Medicine, 23d Edition. 2018. – 1440 p.
4. Murray and Nadel's Textbook of Respiratory Medicine, 6th Edition, 2016
5. Williams Textbook of Endocrinology, 14th Edition, 2019
6. Williams Hematology, 9th edition 2016.

Additional

7. USMLE Step 2 CK Lecture Notes 2017: Internal Medicine (Kaplan Test Prep). - 2016. - Published by Kaplan Medical. - 474 pages.
8. Kidney Disease; Improving Global Outcomes (KDIGO) Blood Pressure Work Group. KDIGO clinical practice guideline for the management of blood pressure in chronic kidney disease. *Kidney Int Suppl.* 2012; 2(5):337-414
9. NKF-DOQI and K/DOQI clinical guidelines for Chronic Kidney Disease https://www.kidney.org/sites/default/files/docs/ckd_evaluation_classification_stratification.pdf
10. The KDIGO practice guideline on acute kidney injury in the individual patient (2012) - <http://www.kidney-international.org>, <http://nephrology.kiev.ua>.