Appendix to the working program

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS FOR DISCIPLINE

Fundamentals of Rheumatology (elective)

Direction of training (specialty): 31.05.01 General Medicine

code, name

Department: Endocrinology and Internal Medicine

Form of study: full-time

(full-time, part-time, correspondence)

Nizhny Novgorod

2021

1. Bank of assessment tools for current control of progress, intermediate certification of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "Fundamentals of Gastroenterology" (elective) is an integral appendix to the working program of the discipline "Fundamentals of Gastroenterology". All approval requisites presented in the RPA for this discipline apply to this BAT.

(Funds of assessment means allow to assess the achievement of the planned results stated in the educational program.

Assessment means - a fund of control tasks, as well as a description of the forms and procedures designed to determine the quality of students' mastering of educational material).

2. List of assessment tools

To determine the quality of learning material mastering by students in the discipline/practice the following assessment tools are used:

No. n/a	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the WCF
1	Tests	A system of standardized tasks, allowing to automate the procedure measuring the level of knowledge and skills of the learner	Test Fund tasks
2	Situational challenges	A method of control that allows to assess the criticality of thinking and the degree of mastering the material, the ability to apply theoretical knowledge in practice	List of tasks
3	Individual survey	A means of control to assess the degree of disclosure of the material	List of questions

3. List of competencies with indication of stages of their formation in the process of mastering the educational program and types of assessment tools

Code and competency statement*	Stage competence building	Controlled theme of the lesson of the discipline	Assessment tools

Добавлено примечание ([u1]): Code - pay attention to the FSES, there is a slight difference in QA and QC.

UC-1, UC-5, UC-7, UC-8, PC-1,5,6,7,8,10,11, 14, 15,16,20,21.	Current, Intermediate	**Section 1** Systemic lupus erythematosus. Antiphospholipid syndrome.	Test tasks, list of situational tasks, list of questions
UC-1, UC-5, UC-7, UC-8, PC-1,5,6,7,8,10,11, 14, 15,16,20,21.	Current, Intermediate	**Section 2** Systemic scleroderma. Idiopathic inflammatory myopathies (polymyositis, dermatomyositis). Rheumatic polymyalgia.	Test tasks, list of situational tasks, list of questions
UC-1, UC-5, UC-7, UC-8, PC-1,5,6,7,8,10,11, 14, 15,16,20,21.	Current, Intermediate	**Section 3** Systemic vasculitides. Credit	Test tasks, list of situational tasks, list of questions

4. Content of assessment means of input, current control

Assessment tools for entry control.

T control is carried out by the teacher of the discipline when conducting classes in the form of: assessment tool 1, assessment tool 2, etc.

Добавлено примечание ([u2]): Select first input - write funds, then current - write funds

Evaluation means for current control.

Assessment Tool 1 - Tests.

1. Which of the following is a common clinical manifestation of systemic lupus erythematosus

(SLE)? a) Persistent fever b) Weight gain c) Jaundice d) Chest pain Answer: d) Chest pain.

2. Which of the following is not a recommended first-line therapy for SLE? a) Hydroxychloroquine b) Methotrexate c) Cyclophosphamide d) Azathioprine Answer: c) Cyclophosphamide

3. Which laboratory test is often positive in patients with SLE and may be useful for monitoring disease activity? a) Erythrocyte sedimentation rate (ESR) b) C-reactive protein (CRP) c) Antinuclear antibodies (ANA) d) Rheumatoid factor (RF) Answer: c) Antinuclear antibodies (ANA)

4. Which of the following organs is most commonly affected by SLE? a) Lungs b) Heart c) Kidneys d) Liver Answer: c) Kidneys

5. Which type of skin rash is a characteristic feature of SLE? a) Nodular erythema b) Psoriasis c) Red squamous lichen planus d) Cheek rash Answer: d) Cheek rash.

6. Which of the following drugs should be avoided in pregnant patients with SLE? a) Hydroxychloroquine b) Azathioprine c) Mycophenolate mofetil d) Corticosteroids Answer: c) Mycophenolate mofetil.

7. Which of the following conditions is closely associated with SLE? a) Diabetes mellitus b) Sjögren's syndrome c) Chronic obstructive pulmonary disease (COPD) d) Hepatitis B virus infection Answer: b) Sjögren's syndrome.

8. What is the most common cause of death in patients with SLE? a) Pulmonary embolism b) Infection c) Heart disease d) Renal failure Answer: b) Infection

9. Which of the following is the most common clinical sign of SLE? a) Arthritis b) Cheek rash c) Fatigue d) Light sensitivity Answer: b) Cheek rash

10. Which of the following autoantibodies are specific to RMS? a) Anti-Ro b) Anti-La c) Anti-dsDNA d) Anti-Sm Answer: c) Anti-dsDNA

11. Which of the following laboratory tests is most specific for SLE? a) Complement levels b) Erythrocyte sedimentation rate (ESR) c) C-reactive protein (CRP) d) Antinuclear antibodies (ANA) Answer: d) Antinuclear antibodies (ANA).

12. Which of the following organs is most commonly affected by SLE? a) Heart b) Liver c) Kidneys d) Lungs Answer: c) Kidneys

13. Which of the following is not a first-line treatment for SLE? a) Hydroxychloroquine b) Glucocorticoids c) Non-steroidal anti-inflammatory drugs (NSAIDs) d) Methotrexate Answer: d) Methotrexate.

14. Which of the following is a potential complication of SLE during pregnancy? a) Preeclampsia b) Gestational diabetes c) Ectopic pregnancy d) Placenta previa Answer: a) Preeclampsia

15. Which of the following infections is of particular concern in patients with SLE receiving immunosuppressive therapy? a) Influenza b) Hepatitis B c) Herpes simplex d) Tuberculosis Answer: d) Tuberculosis.

16. Which of the following cardiovascular risk factors is elevated in patients with SLE?

a) Hypertension b) Hypercholesterolemia c) Smoking d) All of the above Answer: d) All of the above.

17. Which of the following is a potential side effect of long-term glucocorticoid use in patients with SLE? a) Weight loss b) Osteoporosis c) Hypoglycemia d) Insomnia Answer: b) Osteoporosis

18. Which of the following is a potential cause of an SLE flare? a) Infection b) Sun exposure c) Medication noncompliance d) All of the above Answer: d) All of the above.

19. Which of the following is the most common clinical manifestation of antiphospholipid syndrome? A. Arterial thrombosis B. Venous thrombosis C. Pregnancy morbidity D. Neurologic manifestations Answer: C

20. Which of the following tests is recommended for the initial diagnosis of antiphospholipid syndrome? A. Antibody to cardiolipin B. Lupus anticoagulant C. Antibody to beta2-glycoprotein I D. To all of the above answers: D

21. What is the recommended duration of anticoagulant therapy for patients with antiphospholipid syndrome and venous thromboembolism? A. 3 months B. 6 months C. 12 months D. The undefined answer is D

22. Which of the following statements regarding primary antiphospholipid syndrome is correct? A. It is associated with an underlying autoimmune disease B. It is manifested only by arterial thrombosis C. It is diagnosed in the absence of any other underlying disease D. It is more common in men than in women Answer: C

23. Which of the following laboratory results are considered criteria for the diagnosis of antiphospholipid syndrome? A. Antibodies to double-stranded DNA B. A positive direct Coombs' test C. A low complement level D. A positive lupus anticoagulant test Answer: D

24. Which of the following is the most common cause of death in patients with antiphospholipid syndrome? A. Arterial thrombosis B. Venous thrombosis C. Infection D. Complications of pregnancy Answer: B

25. Which of the following statements regarding the treatment of antiphospholipid syndrome during pregnancy is correct? A. Low-dose aspirin is the only recommended treatment B. Anticoagulant therapy is not recommended C. Both low-dose aspirin and anticoagulant therapy are recommended D. Corticosteroids are the first-line treatment Answer: C

26. Which of the following anticoagulants is most commonly used to treat antiphospholipid syndrome? A. Warfarin B. Heparin C. Direct oral anticoagulants D. Aspirin Answer: B

27. Which of the following is NOT recommended for the prevention of thrombotic complications in patients with antiphospholipid syndrome? A. Lifestyle modification B. Anticoagulant therapy C. Antiplatelet therapy D. Immunomodulatory therapy Answer: D

28. Which of the following statements regarding the treatment of catastrophic antiphospholipid syndrome is correct? A. High-dose corticosteroids are first-line

treatment B. Anticoagulant therapy is not recommended C. Plasmapheresis is the first-line treatment D. Rituximab is first-line treatment Answer: C

29. Which of the following is a characteristic symptom of systemic sclerosis? A) Joint pain B) Muscle weakness C) Raynaud's phenomenon D) Headaches Answer: C) Raynaud's phenomenon

30. Which of the following organs is most commonly affected by systemic sclerosis? A) Kidneys B) Lungs C) Liver D) Stomach Answer: B) Lungs

31. What is the estimated prevalence of systemic sclerosis worldwide? A) 100-500 people per million B) 2-10 people per million C) 50-100 people per million D) 500-1000 people per million Answer: B) 2-10 people per million

32. Which type of systemic sclerosis affects only the skin and not internal organs? A) Limited cutaneous systemic sclerosis B) Diffuse cutaneous systemic sclerosis C) Localized scleroderma D) Systemic lupus erythematosus Answer: A) Limited cutaneous systemic sclerosis.

33. Which autoantibody is commonly associated with systemic sclerosis? A) Anti-double-stranded DNA B) Anti-smooth muscle C) Anti-centromere D) Anti-mitochondrial response: C) Anti-centromere

34. Which of the following is a potential treatment option for systemic sclerosis? A) Nonsteroidal anti-inflammatory drugs (NSAIDs) B) Corticosteroids C) Disease-modifying antirheumatic drugs (DMARDs) D) All of the above answers: C) Disease-modifying antirheumatic drugs (DMARDs)

35. Which of the following is a potential complication of systemic sclerosis? A) Pulmonary hypertension B) Osteoporosis C) Hypothyroidism D) Hypercholesterolemia Answer: A) Pulmonary hypertension

36. Which of the following is a potential symptom of systemic sclerosis affecting the digestive system? A) Abdominal pain B) Constipation C) Diarrhea D) All of the above Answer: D) All of the above.

37. Which of the following imaging tests can be used to diagnose systemic sclerosis affecting the lungs? A) Magnetic resonance imaging (MRI) B) Computed tomography (CT) C) X-ray D) Positron emission tomography (PET) Answer: B) Computed tomography (CT).

38. What is the main characteristic feature of systemic sclerosis? A. Joint pain B. Fibrotic scarring of the skin C. Muscle weakness D. Vision problems Answer: B

39. What is the recommended first-line treatment for patients with early diffuse systemic sclerosis of the skin? A. Methotrexate B. Cyclophosphamide C. Mycophenolate mofetil D. Azathioprine Answer: C

40. Which treatment is recommended for patients with late diffuse systemic sclerosis of the skin and significant skin thickening? A. Cyclophosphamide B. Mycophenolate mofetil C. Methotrexate D. Rituximab Answer: B

41. What treatment is recommended for patients with limited systemic sclerosis of the skin and finger ulcers? A. Bozentan B. Prostacyclin analogs C. Endothelin receptor antagonists D. Calcium channel blockers Answer: B

42. Which treatment is recommended for patients with pulmonary arterial hypertension associated with systemic sclerosis? A. Bosentan B. Prostacyclin analogs C. Endothelin receptor antagonists D. Calcium channel blockers Answer: C

43. Which treatment is recommended for patients with interstitial lung disease associated with systemic sclerosis? A. Cyclophosphamide B. Mycophenolate mofetil C. Rituximab D. Nintedanib Answer: B

44. Which treatment is recommended for patients with severe gastrointestinal lesions in systemic sclerosis? A. Proton pump inhibitors B. H2-receptor antagonists C. H2-receptor antagonists C. Prokinetics D. Antibiotics Answer: C

45. Which treatment is recommended for patients with renal crisis in systemic sclerosis? A. ACE inhibitors B. BRAs. BRAS C. Calcium channel blockers D. Beta-blockers Answer: A

46. What is the recommended treatment for patients with finger ulcers in systemic sclerosis who do not respond to first-line therapy? A. bosentan B. Iloprost C. Endothelin receptor antagonists D. Calcium channel blockers Answer: B

47. What treatment is recommended for patients with Raynaud's phenomenon in systemic sclerosis? A. Calcium channel blockers B. Endothelin receptor antagonists C. Phosphodiesterase type 5 inhibitors D. Prostacyclin analogs Answer: A

48. What is the cause of most forms of vasculitis? A. Genetic mutations B. Viral infections C. Bacterial infections D. Autoimmune processes Answer: D

49. What is the most common type of vasculitis? A. Gigantocellular arteritis B. Polyarteritis nodosa C. Takayasu arteritis D. Wegener's granulomatosis Answer: A

50. Which of the following is NOT a symptom of vasculitis? A. Fatigue B. Fever C. Joint pain D. Hearing loss Answer: D

51. What is the primary diagnostic tool for vasculitis? A. Blood test B. X-ray C. Computed tomography D. Biopsy Answer: D

52. What is the first choice of treatment for vasculitis? A. Antibiotics B. Corticosteroids C. Chemotherapy D. Surgery Answer: B

53. Which of the following is a complication of vasculitis? A. High blood pressure B. Stroke C. Heart attack D. All of the above answers: D

54. Which of the following types of vasculitis affects the skin? A. Takayasu arteritis B. Polyarteritis nodosa C. Kawasaki disease D. Wegener's granulomatosis Answer: C

55. Which of the following is a risk factor for the development of vasculitis? A. Smoking B. Obesity C. Lack of exercise D. High cholesterol Answer: A

56. Which of the following is not a potential complication of corticosteroid treatment for vasculitis? A. High blood pressure B. Increased risk of infection C. Weight gain D. Hearing loss Answer: D

57. Which of the following statements is true about vasculitis? A: It is a condition that affects the lungs. B. It is a type of cancer. C. It is an autoimmune disease that affects blood vessels. D. It is a viral infection.

The correct answer is C

58. Which of the following is NOT a symptom of vasculitis? A. Fever B. Fatigue C. Joint pain D. Hair loss

The correct answer is D

59. Which of the following types of vasculitis is characterized by inflammation of blood vessels in the skin, joints, and gastrointestinal tract? A. Gigantocellular arteritis B. Granulomatosis with polyangiitis C. Henoch-Schenlein purpura D. Takayasu's arteritis

The correct answer is B

60. Which of the following tests can be used to diagnose vasculitis? A. X-ray B. MRI C. Biopsy D. Blood test

The correct answer is C

61. Which of the following is the preferred treatment for vasculitis? A. Antibiotics B. Chemotherapy C. Steroids D. Antiviral drugs

The correct answer is C

62. Which of the following is a risk factor for the development of vasculitis? A. Age over 65 years of age B. Smoking C. Lack of physical activity D. High-fiber diet

The correct answer is B

63. Which of the following is a potential complication of vasculitis? A. Blindness B. Deafness C. Loss of taste D. Loss of sense of smell

The correct answer is A

64. Which of the following types of vasculitis affects large arteries, especially arteries of the head and neck? A. Polyarteritis nodosa B. Takayasu's arteritis B. Takayasu's arteritis C. Wegener's granulomatosis D. Henoch-Schönlein purpura

The correct answer is B

65. Which of the following types of vasculitis affects small blood vessels in the skin, lungs, and kidneys? A. Granulomatosis with polyangiitis B. Gigantocellular arteritis C. Cherga-Stross syndrome D. Takayasu's arteritis

The correct answer is A

66. Which of the following types of vasculitis primarily affects the blood vessels of the head and neck, especially those that supply the eyes and optic nerves? A. Cherg-Stross syndrome B. Gigantocellular arteritis C. Takayasu arteritis D. Polyarteritis nodosa

The correct answer is B

67. What term is used to describe a group of rare conditions that involve chronic muscle inflammation, weakness, and pain? a. Myalgia b. Myasthenia gravis c. Myopathy d. Muscular dystrophy Answer: c. Myopathy

68. What is the most common pattern of weakness in myopathy? a. Distal weakness b. Proximal weakness c. Generalized weakness d. Symmetric weakness Answer: b. Proximal weakness

69. What is the most common subtype of idiopathic inflammatory myopathy? a. Polymyositis b. Dermatomyositis c. Inclusion body myositis d. Necrotizing autoimmune myopathy Answer: b. Dermatomyositis

70. What is a characteristic feature of necrotizing autoimmune myopathy? a. Muscle inflammation with invasion of CD8+ T cells b. Muscle inflammation with invasion of CD4+ T cells c. Muscle inflammation with B-cell invasion d. Muscle inflammation with invasion by neutrophils Answer: a. Muscle inflammation with CD8+ T-cell invasion

71. Which myopathy is frequently associated with interstitial lung disease? a. Polymyositis b. Dermatomyositis c. Inclusion body myositis d. Necrotizing autoimmune myopathy Answer: b. Dermatomyositis

72. Which autoantibodies are frequently present in patients with necrotizing autoimmune myopathy? a. Anti-Jo-1 b. Anti-Mi-2 c. Anti-SRP d. Anti-HMGCR Answer: d. Anti-HMGCR

73. What is the first-line treatment for inflammatory myopathies? a. Nonsteroidal anti-inflammatory drugs (NSAIDs) b. Corticosteroids c. Disease-modifying antirheumatic drugs (DMARDs) d. Immunomodulatory therapy Answer: b. Corticosteroids

See also the test tasks on the portal of SDO FGBOU VO PIMU of the Ministry of Health of the Russian Federation

https://sdo.pimunn.net/course/view.php?id=3132

Assessment tool 2 (situational tasks).

4.1 Tasks for assessment of competences УК - 1, 4, 5; ОПК - 1, 2, 4, 5, 6, 7, 10, 11; ПК - 1, 2, 3, 4, 5, 6, 7, 8, 9, 9, 10, 13, 16, 19, 22*:*

Task 1.

Task #1

A 24-year-old woman came to the outpatient clinic with arthritis of small joints of the hand, short-lasting morning stiffness, weakness, fatigue, increased body temperature to subfebrile

figures in the 2nd half of the day, and increased hair loss 3 months after childbirth. The duration of the above complaints is about 1 month. She lost weight by 5 kg.

Questions:

1. Your presumed diagnosis?
2. What methods should be used to examine the patient?
3. What will be the treatment tactics in this case?

Answers

1. The young age of the patient, the association of the disease debut with pregnancy and childbirth, and the clinical picture primarily suggest the debut of a rheumatic disease - rheumatoid arthritis or systemic lupus erythematosus (SLE).
2. First of all, the anamnestic data should be analyzed in detail and a thorough physical examination should be performed. Routine laboratory examination is mandatory: clinical blood and urine analysis, biochemical blood count, ECG, if indicated - chest X-ray. To verify the diagnosis, special laboratory tests are necessary - determination of C-reactive protein levels by a highly sensitive method, antibodies to cyclic citrullinated peptide, anti-DNA, antinuclear factor, rheumatoid factor. Radiography of the involved joints may be uninformative due to the short duration of the disease.
3 Treatment depends on the presumed diagnosis. If verification is impossible (there is no convincing data in favor of a reliable diagnosis of rheumatoid arthritis or SLE), observation, prescription of non-steroidal anti-inflammatory drugs, aminoquinoline derivatives are reasonable.

Task No. 2

During the dispensary examination, the district therapist noticed the presence of skin atrophy with desquamation on the cheeks, chin, and ear lobes in a 30-year-old man. These rashes appeared about 10 years ago, somewhat intensified after sun exposure. The patient's general condition is normal, he has no complaints at the time of examination. For the last few years he has been experiencing occasional pain in the small joints of the hand, which he attributes to prolonged physical activity. Six months ago, after a respiratory viral disease for 2 weeks he was bothered by chest pain during breathing, subfebrile temperature, for which he was treated with antibacterial therapy with amoxicillin/clavulanic acid for 7 days with positive effect.

Allergologic anamnesis of the patient - without peculiarities. The patient's sister suffers from SLE. Past diseases: childhood infections, sore throat, hepatitis A at the age of 5 years.

The patient was consulted by a dermatologist and diagnosed with discoid lupus erythematosus (DLE). No pathology (except for skin lesions) was noted during physical examination.

No changes in the general blood count, urinalysis, biochemical parameters were detected during the examination. On chest radiographs - increased vascular pattern in the lower parts of the lungs, single pleuro-diaphragmatic adhesions. Echo-CG: no pathology was found. Immunologic blood analysis: cryoprecipitins - negative, rheumatoid factor - negative, antibodies to double-helix DNA - 14 units (norm - up to 20 units), antinuclear factor - 1/20 mottled type of luminescence.

Diagnostic reasoning

In a patient with DKV, there is currently no set of criteria to make a diagnosis of reliable SLE, and laboratory markers of SLE are negative. In addition, male gender is more commonly associated with skin disease (DKV), and idiopathic SLE is 10 times less common than in women. However, there are a number of symptoms to look for: increased intensity of rashes after insolation, migratory arthralgias, the presence of pleuro-diaphragmatic adhesions on chest radiographs, and family history.

What's your tactic?

1. The patient needs dispensary monitoring and regular laboratory examination even in the absence of complaints (general blood test - to detect cytopenia, general urine test - to detect asymptomatic changes, immunologic blood test). The need for monitoring is due to the existence of primary-chronic variant of the course of SLE, which is characterized by the presence of monosymptomatology (including DIC) for a number of years. This variant of SLE is often observed in male patients with SLE.
2. It is necessary to give recommendations to the patient on lifestyle (to refuse bad habits, avoid insolation, to carry out vaccine prophylaxis only on vital indications, to avoid independent taking of medicines, at appearance of any indisposition to address to the therapist and rheumatologist).
3. administration of hydroxychloroquine.

Task #3
A 19-year-old woman has been suffering from reliable SLE for 5 years. The dose of medications has remained stable for the last 2 years: prednisolone - 5 mg/day and hydroxychloroquine - 200 mg/day. Against this background there are no signs of activity of the underlying disease (both clinical and laboratory). At the present moment she is 16 weeks pregnant. For the last 2 weeks, short-term pains in small joints of the hand and knee joints, without swelling and limitation of movement, which pass independently at rest. There are no other complaints. Regularly observed by an obstetrician-gynecologist.

Physical examination revealed no pathologic abnormalities. The joints are externally unchanged, active and passive movements are preserved in full, painless.

Laboratory examination: hemoglobin - 115 g/l, leukocytes - 4x109/l, leukocyte formula - without deviations, platelets - 246x1012/l, COE - 20 mm/h. General urinalysis - without pathology. Biochemical indices - within normal limits. Immunologic blood analysis: IgG-ACL - 10 GPL, IgM-ACL - 7 MPL. Lupus anticoagulant - negative. Antibodies to double-helix DNA - 16 units (norm - up to 20 units). Antinuclear factor - 1/40 mottled luminescence type.

What's your tactic?

1. withdrawal of glucocorticoids.
2. Withdrawal of hydroxychloroquine.
3. Increasing the dose of glucocorticoids.
4. Continuation of the current therapy.

Diagnostic reasoning

1 Pregnancy in this patient occurred against the background of remission of SLE and low doses of immunosuppressive drugs (which is optimal).
2. There are no signs of underlying disease activity at present (moderate arthralgias and elevated COE are common in healthy women during pregnancy).

Choice of patient management tactics

1. There are no indications for intensification of therapy at present (the patient should be under the supervision of specialists during the whole period of gestation to detect signs of disease activation).
2. Withdrawal of medications is dangerous due to the high risk of developing exacerbation of SLE. Prednisolone and hydroxychloroquine are approved for use during pregnancy and feeding.

Task No. 4
A 30-year-old woman after a vacation in the south developed fever, painful ulcers in the oral cavity, rashes in the cheekbone area, chest pain when breathing, swelling of the lower extremities, increased BP up to 190/100 mm Hg, increased urination, change in the color of urine ("meat slop").

On examination: diffuse alopecia. Erythema of the zygomatic region. Enanthema. The skin is pale. Joints are not externally changed, movements are made in full. Heart tones clear, rhythm correct. Heart rate - 100/min. BP - 160/100 mm Hg. At auscultation of the lungs on the right in the lower parts of the lungs there is a noise of friction of the pleura. Liver, spleen are not enlarged. Swelling of the lower third of the lower legs.

Survey Results:

General blood analysis: hemoglobin - 94 g/L, leukocytes - 3.6x109/L, lymphopenia, platelets - 160x1012/L, sedimentation rate - 32 m/h.
Urinalysis: specific gravity - 1010, protein - 1.8 g/l, erythrocytes - 10-15 in the field of view, leukocytes - 15-20 in the field of view, hyaline cylinders - 6-8 in the field of view. Daily proteinuria - 4.5 g.
Biochemical blood analysis: cholesterol - 6.7 mmol/l, creatinine - 105 μmol/l, urea - 12 mmol/l, total protein - 56 g/l; other parameters - within normal limits.
Immunologic blood analysis: C-reactive protein - 9 mg/mL (norm - 0-5 mg/mL), cryoprecipitins - negative, rheumatoid factor - negative, antibodies to double-helix DNA - 160 units (norm - up to 20 units), antinuclear factor - 1/640 homogeneous type of luminescence.
Chest radiography: signs of right-sided pleurisy.
On the basis of anamnesis, clinical and laboratory examination, the diagnosis was made: SLE, acute onset.

Your treatment tactics?
1. Glucocorticoids orally at a rate of 1 mg/kg body weight.
2. Pulse therapy with methylprednisolone 1000 mg w/v for 3 days.
3. Cyclophosphamide - 1000 mg w/v drip monthly for 6 months.
4. Mycophenolate mofetil - 2 g/day.
5. Hydroxychloroquine - 400 mg/day.

Choice of therapy

The diagnosis of acute SLE is not doubtful. The leading in the clinical picture is renal damage (nephritis with nephrotic syndrome), which developed at the onset of the disease, which is a prognostically unfavorable sign. A kidney biopsy is indicated to clarify the morphological class of lupus nephritis, calculate the activity index and chronicity index (currently the "gold standard" for determining therapeutic tactics).

In this situation (even if a nephrobiopsy is not possible), the following treatment regimens are possible:

1 scheme

- Administration of glucocorticoids per os at the rate of 1 mg/kg/day. -
Combined use of pulse therapy with methylprednisolone and cyclophosphamide according to the classical scheme (1000 mg methylprednisolone for 3 days + 1000 mg cyclophosphamide) followed by monthly administration of 1000 mg methylprednisolone and 1000 mg cyclophosphamide monthly.

2 scheme

- Administration of glucocorticoids per os at the rate of 1 mg/kg/day. -
Administration of mycophenolate mofetil 2-3 g/day.
It is reasonable to prescribe hydroxychloroquine in doses of 200-400 mg/day when using both schemes.

Justification of therapeutic tactics The
presence of prognostically unfavorable factors of the disease outcome dictates the need to use aggressive methods of treatment from the moment of diagnosis (high doses of glucocorticoids and cytotoxics). In randomized trials, cyclophosphamide and mycophenolate mofetil have been shown to be equally effective in lupus nephritis, with better tolerability of the latter).
Feasibility of prescribing hydroxychloroquine:
- Steroid-saving effect [Rudnicki R.D., 1975]. -
Proven efficacy in combined use in patients with vital organ damage [Kasitanon N., 2006]. -
Reduction in the frequency and severity of exacerbations [Canadian Hydroxychloroquine Study Group, 1998]. -
Maintenance of remission of lupus nephritis [Sisó A., 2008]. -
Favorable effect on the long-term outcomes of the disease (mortality, the development of irreversible organ damage), maximally expressed at early appointment [Alarcon G.S., 2007; Ruiz-Irastorza G.; Molad I., 2002; Fessler B.J., 2005].

Task No. 5

Patient P., 30 years old, complained of pain in the small joints of the hands, knee joints, their swelling and limited range of motion in them. "Plaque-like" rashes on the skin of the scalp, extremities, in the area of the extensor surface of the elbow joints. Joint syndrome for about two years. Has not been treated regularly.

Past medical history: my maternal grandmother has psoriasis. About 6 months ago there was an attack of renal colic, according to ultrasound - small concretions.

Objectively: the skin is physiologically colored. On the skin of the scalp, upper extremities - plaques with scaly desquamation. There is edema of the distal interphalangeal joints of the 1-3 fingers of the left hand, the skin over them is reddish-blue, arthritis of the metacarpophalangeal, proximal and distal m/phalangeal joints of the 2 fingers of the left hand. In the area of the right knee joint - swelling, restriction of movement volume.

Hand radiography: narrowing of articular gaps of proximal and distal interphalangeal joints, multiple marginal erosions, periostitis.

1. Preliminary diagnosis.

2. Additional methods of examination for the definitive diagnosis

3. Diagnostic criteria confirming the clinical diagnosis

4. What diseases should be differentially diagnosed?

5. Treatment

Sample answer to task 5

1. Psoriatic arthritis, polyarthritic variant, erosive on x-ray. Psoriasis, vulgar, disseminated. Urolithiasis.
2. Clinical minimum. Immunologic markers, renal function tests
3. Joint syndrome, psoriatic skin rashes, characteristic radiologic signs: marginal erosions, periosteal deposits
4. Rheumatoid arthritis, gouty arthritis combined with cutaneous psoriasis
5. NSAIDs, methotrexate, TNF inhibitors (Remicade, Humira, etc.)

Task No. 6

A 32-year-old patient hospitalized for erythematous rash on her shins. She became ill 3 days ago, when fever up to 38C appeared simultaneously, without chills and pain in knee and ankle joints.

I had tonsillectomy and appendectomy as a child. 3 weeks ago I had liquid stools for 2 days.

Objectively: on the anterior and posterior surfaces of the shins red, hot and painful on palpation spots with a dense base (nodules), from bright red to "blooming bruise" up to 3 cm in diameter, up to 10 elements in total.

Signs of arthritis of the right knee and ankle joints: the joints are swollen, hot to the touch, skin color over them is not changed. Body temperature is 38C. Pulse - 90 per min. BP - 130/70 mm. Hg. Peripheral lymph nodes are not enlarged.

1. Preliminary Diagnosis.

2. Additional methods of examination for the definitive diagnosis

3. Diagnostic criteria confirming the clinical diagnosis

4. What diseases should be differentially diagnosed?

5. Treatment program

Sample answer to task 6

1. Reactive arthritis (post-enterocolytic?). Nodular erythema.

2- Examination for intestinal infections, tuberculosis, sarcoidosis, specific (caused by venereal diseases) process.

3. characteristic joint syndrome, signs of erythema nodosum and intestinal infection

4. Differential diagnosis between the listed diseases

5. NSAIDs, if infection is confirmed - antibiotics according to sensitivity; sarcoidosis - GCS.

Task No. 7

Patient G., 24 years old, was admitted with fever of 38-39° C, which lasted for 4 weeks, chills, palpitations, dyspnea, swelling of feet and shins. At the age of 12 he suffered a rheumatic attack, and at the age of 17 he was diagnosed with mitral heart defect.

On examination: condition is severe. Orthopnea, dyspnea. The skin is pale jaundiced, with petechial rashes. The feet and shins are edematous. "Cardiac hump", apical tremor in V m/r shifted to the anterior axillary region, amplified. The boundaries are dilated. Rough systolic murmur in III m/r on the left edge of the sternum. Pulse 115 /min, BP 140/40 mm Hg. Double tone Traube and Durosier murmur on the femoral artery. Hepatosplenomegaly.

Echo-CG: vegetations on the mitral valve 2.5-3 mm

1. Preliminary Diagnosis.

2. Additional methods of examination for the definitive diagnosis

3. Diagnostic criteria confirming the clinical diagnosis

4. What diseases should be differentially diagnosed?

5. Treatment program

Benchmark for task 7

1. chronic rheumatic heart disease. Combined mitral-aortic malformation (mitral and aortic valve insufficiency). Secondary infective endocarditis. HIIB.

2. OAC, OAM, blood chemistry, blood culture for sterility, procalcitonin test, screening for DIC, chest X-ray, immunologic markers

3 History, clinical and auscultatory signs of malformations and circulatory insufficiency

4. Recurrent rheumocarditis, aortoarteritis, antiphospholipid syndrome

5. Broad-spectrum antibiotics, then according to sensitivity (III-IV generation cephalosporins in combination with aminoglycosides and metronidazole with subsequent change in case of ineffectiveness) in combination with means of detoxification, anticoagulant and metabolic therapy. In the presence of DIC - anticoagulants, fresh frozen plasma.

Task No. 8

Patient O. 44 years old. He came in with complaints of nasal congestion, decreased sense of smell, mucopurulent discharge, voice nasality. Past medical history: chronic purulent maxillary sinusitis for 1 year, unmotivated fever up to 38, purulent-bloody nasal discharge with unpleasant

odor, constant feeling of nasal congestion. Arthralgias. During examination at ENT doctors by m\zh destructive changes of bone and cartilage walls of the nasal cavity were observed. Examination: OAC: Er-4200000, Nv-140-g/l, c.p-1, L-11400, p-9, OAM: specific gravity-1017, protein, sugar-negative, L-3-4 in the specimen. Sero-mucoid-0,19, fibrin-3,5, creatinine - 0,06, sugar - 3,5, uric acid - 5,0, total protein - 76, Alb.-52,2, A1-3,7, A2-12,7, B-16,2, gamma-153, ANF-otr, cryoglobulins-otr, a/t DNA-otr. Biopsy showed purulent-productive granulomatous inflammation.

1. Preliminary Diagnosis.

2. Additional methods of examination for the definitive diagnosis

3. Diagnostic criteria confirming the clinical diagnosis

4. What diseases should be differentially diagnosed?

5. Treatment program

Benchmark for task 8

1. Wegener's granulomatosis, localized form (chronic atrophic rhinitis with destruction of bone and cartilage walls, tympanic cavity). Activity-II.
2. X-ray of lungs, CT of skull, upper respiratory tract, respiratory organs blood for antineutrophil cytoplasmic a/t (ANCA)
3. Granulomatous inflammation of the upper respiratory tract, leukocytosis
4. Lymphomatoid granulomatosis, angiocentric malignant lymphoma, tumors, syphilis
5. Treatment: pulse therapy with methylprednisolone 1000mg #3, cyclophosphan 1000mg #1, cyclophosphan 100mg every other day with gradual reduction to 400mg per week, "vascular drugs": trental v\v etc., prednisolone intravenously.

Task No. 9

Patient B., 35 years old, a resident of a rural area, came to the clinic with complaints of pain and stiffness in the lumbar, thoracic spine and left hip joint. The pains first appeared 5 years ago in the area of gluteal muscles, lumbar spine. I was examined and treated by a neurologist at the place of residence. When taking NSAIDs the pain decreased, but gradually the mobility of the spine decreased, the patient's posture changed. Radiologically: bilateral erosive sacroileitis, symptom of "vertebral quadratization" and intervertebral syndesmophytes.

1. Preliminary Diagnosis.

2. Additional methods of examination for the definitive diagnosis

3. Diagnostic criteria confirming the clinical diagnosis

4. What diseases should be differentially diagnosed?

5. Treatment program

Benchmark for task 9

1. Idiopathic ankylosing spondylitis (Bechterew's disease). Peripheral form.

2. Clinical minimums, blood for B27 a/g carrier, ocular fundus, lung Rg, renal function.
3. Clinical signs of inflammatory disease of the spine, 2-sided erosive sacroileitis (specific sign), Rg-signs of ossification of the ligamentous apparatus
4. Dystrophic-degenerative diseases of the spine, including juvenile osteochondrosis, Forestier's disease, brucellosis spondylitis
5. The basis of therapy - NSAIDs for life, TNF inhibitors, myorelaxants.

Task No. 10

Patient B., 19 years old, became ill a year ago when she first noticed swelling and pain in the joints of her fingers and toes. These changes resolved spontaneously after one month. She became pregnant two months later, but had a spontaneous abortion at 12 weeks. Shortly thereafter, her condition worsened. She began to notice swelling of the feet and face, fever up to 37.8°C, red spots on the face, muscle pain, cough, and decreased sensation in the hands and feet. On examination, the patient is severely emaciated and weakened, lethargic, unable to sit up on her own. There is marked swelling of the face, feet and lower third of the lower legs. There are erythematous spots on the cheeks. There is a distinct marble pattern on the skin of the lower legs. Decreased sensitivity in the feet and hands by the type of socks and gloves, significant weakness of muscle strength of the hands is noted. At lung examination, diffuse dry rales are heard auscultatingly, moderate fluid accumulation is detected percussively in the lower parts. When examining the heart - percussion borders are widened, heart tones are muffled, rhythm is correct, HR 90 per min. The abdomen on palpation is somewhat tense, moderately painful in all parts; liver and spleen are not enlarged. The temperature is 38°C. According to laboratory tests, anemia was detected in the general blood count, COE 45mm/hour. In rheumaprobes RF 126 IU/mL, ANF 1/1280, antibodies to phospholipids 89U/mL. In the daily urinalysis, the amount of protein is 3g/l. X-ray of the thoracic cavity showed signs of bilateral pleuritis, pericarditis, sharp strengthening of the pulmonary pattern.

Questions for the task: 1. What disease can be suspected on the basis of these changes? 2. What investigations can be used to confirm the diagnosis? 3. What is the treatment plan for this disease?

Answers. 1. Systemic lupus erythematosus. AFLS. 2. ANF, AFL AT 3. Glucocorticosteroids, hydroxychloroquine, aspirin, anticoagulants.

Task No. 11

Patient T., 23 years old, came to the clinic with complaints of marked weakness, increased body temperature up to 38.2°C, shortness of breath, dry cough, pain and swelling in the area of small joints of the hands, morning stiffness within an hour, widespread erythematous rashes in the face, trunk and extremities, increased hair loss, weight loss. From anamnesis it is known that 3 months ago the patient had her first pregnancy, which ended in spontaneous miscarriage at the term of 12 weeks. In 2 weeks after the miscarriage, the temperature rose to 38.5°C, there was marked weakness, erythematous rashes on the face, as well as on the trunk and limbs, pain and swelling in the area of small joints of the hands, accompanied by morning stiffness, dry cough. Ten days ago she noted swelling and pain in the region of the right lower extremity. Her condition worsened today, when dyspnea and dry cough suddenly increased, she had an episode of hemoptysis and was hospitalized. Allergologic anamnesis without peculiarities. Hereditary anamnesis: mother suffers from rheumatoid arthritis. On examination: Condition of average severity. Reduced nutrition. Body temperature 38.2 ° C. Consciousness is clear. Skin pale, dry, generalized erythematous rashes clearly demarcated from healthy skin on the face in the area of the nose and cheeks, trunk, upper limbs and thighs. The lips are hyperemic with dense dry

grayish scales and crusts. There is erythema with painless erosion on the hard palate. The hair is thin, broken off at the edge of the growth area. Lymph nodes available for palpation are not enlarged. Painfulness and swelling in the area of metacarpophalangeal and proximal interphalangeal joints of both hands were detected. In the lungs breathing is stiff, below the level of the VI rib on the right is not conducted, there is also noted dulling of the percussion sound, HR - 28 per minute. Percussion borders of relative cardiac dullness are dilated to the right. Epigastric pulsation is revealed. On auscultation, heart tones are clear, rhythm is correct, HR - 110 per minute, accent of the II tone in the II intercostal space to the left of the sternum, BP - 110/70 mm Hg. The abdomen is soft, painless on palpation in all parts. The liver and spleen are not enlarged. The palpation symptom is negative on both sides. Neurological status without peculiarities. Clinical blood analysis: hemoglobin 80 g/l; erythrocytes 2,8x1012/l; CP - 0,94; platelets 110x109 /l; leukocytes 2,8x109 /l; paloconuclear 6%; segmentonuclear 69%; lymphocytes 13%; monocytes 12%; COE 46 mm/hour. Biochemical blood analysis: total protein 75 g/l; urea 6.0 mmol/l; creatinine 98 μmol/l; AST 23 units/l; ALT 25 units/l; CPC 98 units/l; total bilirubin. 16 μmol/l; glucose 4.2 mmol/l; CRP 60 mg/l. Immunologic blood analysis: ANP 1:640 (homogeneous type of luminescence); anti-dsDNA 64 IU/mL; lupus anticoagulant - "positive"; AT to cardiolipin (IgG) 94 units/mL. Urinalysis: specific gravity 1020, acidic reaction, protein 1.2 g/l, erythrocytes 10 - 15 in the field of view, leukocytes 3 - 4 in the field of view, hyaline cylinders 2 - 3 in the field of view, no bacteria. ECG - sinus rhythm, HR - 100 per minute, deviation of the electrical axis to the right, complete blockade of the right leg of the bundle of Hiss. Chest radiography: the shadow of the heart is dilated to the right, swelling of the pulmonary artery cone is noted, lung fields without infiltrative changes, free fluid in the right pleural cavity up to the VI rib, on the left a small amount of fluid in the sinus.

Questions: 1. Formulate the clinical diagnosis and its rationale.2. Make a differential diagnosis. 3. Assign additional studies. 4. Determine the tactics of patient management.

Answers. 1.Systemic lupus erythematosus, AFLS. 2. Rheumatoid arthritis, mixed connective tissue disease, leukemia, myocarditis, systemic vasculitis, anemia, glomerulonephritis, TELA. 3. ENMG, EchoCS, abdominal and renal ultrasound, pleural puncture and microscopy of pleural fluid sediment, lipid profile C3 and C4 complement components, coagulogram, D-dimer, daily protemnuria, pregnancy test. 4. Corticosteroids, cytostatics, rituximab, direct anticoagulants, diuretics.

Task No. 12

Patient B., 60 years old, applied due to severe dyspnea and weakness. Past medical history: For the first time she began to notice the appearance of dyspnea and dry cough several years ago, then she also noticed periodic whitening of fingers, but explained it as a manifestation of menopause. Later on, the dyspnea gradually increased, and now the patient can hardly move because of it. On examination there is marked cyanotic skin of hands, feet and shins. There are trophic changes in the nails, multiple small ulcers at different stages of healing on the pads of the fingers. There is a rounded area of scarred skin on the face above the right supraorbital area, but the patient states that there was no injury. The available radiographs show diffuse pneumofibrosis and evidence of pericarditis. A urinalysis revealed a protein of 0.54 g/L. RF 92 IU/mL, ANF 1/640. ECG showed atrioventricular blockade of the first degree.

Questions: 1. What disease can be suspected on the basis of these changes? 2. What tests can be used to confirm the diagnosis? 3. What is the treatment plan for this disease?

Answers. 1. Systemic scleroderma (systemic sclerosis). 2. ANA immunoblot, capillaroscopy, chest MSCT, glomerular filtration and daily proteinuria. 3. D-penicillamine, pentoxifylline, nitroglycerin ointment on fingers, corticosteroids, cytostatics. Treatment of lung pathology after follow-up examination.

Task No. 13

Patient K., 58 years old, was hospitalized upon referral from the district outpatient clinic to clarify the diagnosis. From the anamnesis: she fell ill four months ago, when for the first time she noticed weakness in her arms and legs. She attributed these changes to fatigue and went on vacation to Turkey. On the background of insolation, red spots appeared on the skin of the face and on the anterior surface of the chest wall, which are still present. Over the months since the onset of the disease, the patient's condition gradually worsened. Weakness in her arms and legs increased, which led to difficulty in her daily activities: it became difficult for her to dress, comb her hair, climb stairs, and recently even to get out of bed. Three days before hospitalization, she noticed difficulty in swallowing, and her voice became nasal. She was consulted by a neurologist and endocrinologist at the outpatient clinic: no signs of neurologic or endocrinologic diseases were detected. On examination: the patient was lying in bed, unable to rise and sit up without assistance, could hardly hold her head. Bright erythema of the face; there are erythematous spots in the upper third of the anterior surface of the chest, the same spots on the skin in the area of the joints. The pads of the fingers of the hands are hyperemic, with cracked skin. Dysphagia, dysphonia. Body temperature 37.5°C, BP 130/80 mmHg. Auscultation: breathing stiff, single dry rales; heart tones muffled, rhythm correct, HR 100 beats per min. Percussion and palpation without peculiarities. ECG: sinus rhythm, frequency 105 beats per minute. ST segment is isoelectric in all leads. There is a decrease in the amplitude of R teeth in the right leads, T teeth are smoothed. According to laboratory tests: moderate anemia in the general blood analysis (hemoglobin 105 g/l, erythrocytes 3x1012/l), other parameters - without significant changes, COE 45 mm/hour. In the biochemical blood test, the increase in the level of total CPK up to 5600 units/l is noteworthy. Also antinuclear factor was detected in titer 1:320.

Questions for the task: 1. What disease can be suspected on the basis of these changes? 2. What investigations can be used to confirm this diagnosis? 3. What is the treatment plan for this disease?

Response. 1. Dematomyositis. 2. ENMG, muscle biopsy, muscle MRI, chest MSCT. 3. Corticosteroids, cytostatics, intravenous immunoglobulin, interleukin 6 or its receptor inhibitors.

Task No. 14

Patient D., 27 years old, was admitted to the therapeutic department with complaints of marked weakness, weight loss (by 10 kg over the last 2 months), body temperature increase to 37.2-37.5°C daily, without chills, periodic cramps in the lower extremities, sensory disturbances in the right arm and left leg. He considered himself sick for about a year, when for the first time without any apparent reason began to appear cramps and sensory disturbances in the hands and feet, sometimes increasing body temperature to 37.2-37.3 ° C, papular rash on the shins, pain in the knee and ankle joints. Observation and treatment by a neurologist had no effect. In the last 2 months the condition began to progressively worsen: BP increased up to 190/110 mm Hg (without clinical manifestations), fever became constant. He began to lose weight. From the transferred diseases he noted hepatitis B. He was observed by a neurologist with the diagnosis of "polyneuropathy of alimentary toxic genesis". On examination: general condition is satisfactory.

The patient is undernourished. Skin covers and visible mucous membranes of usual color. On the shins - residual phenomena of papular rash. Body temperature 37.5° C. With eyes closed, the patient cannot determine which finger of the left hand and right foot is being touched. Paresis of the left hand and right foot.Vesicular breathing in the lungs, no rales. Heart rhythm is correct, HR-88 per minute. BP on the right arm - 210/120 mm Hg, on the left - 200/110 mm Hg. The liver is not enlarged. The abdomen is soft and painless on palpation. There is no edema. Stool and diuresis without peculiarities. General blood analysis: hemoglobin 95 g/l, erythrocytes 3.1x1012/l, leukocytes -12.6x109 /l, platelets - 437x109 /l, formula: neutrophils - 2%, segmented neutrophils - 77%, monocytes - 2%, lymphocytes -19%, eosinophils - 0%, basophils - 0%. COE - 65 mm/hour. Urinalysis: density 1012, color - yellow, glucose, bilirubin, ketone bodies - absent, protein - 0.17 g/l, leukocytes - 1-2 in p.s.p., erythrocytes - 7-8 in p.s.p.. Biochemical analysis of blood: total protein - 72 g/l, albumin - 45 g/l, α1-4% α2-8% β-12% γ-22%, creatinine -112 μmol/l, AST-42 U/l, ALT-45 U/l, alkaline phosphatase - 98 U/l, bilirubin - 14 μmol/l, CRP - 48 g/l. Serologic analysis: HBsAg+, HBeAg-, AbHBcIgG+, AbHBcIgM-, AbHCV-.

Questions: 1.. Diagnosis. 2. Additional methods of examination . 3. Differential diagnosis. 4. Treatment.

Answers. 1. Polyarteritis nodosa. 2. ANCA, ANA, CRP, ENMG, chest MSCT, abdominal and renal ultrasound, shin skin biopsy. MSCT - angiography of the brain. 3. Other vasculitis, ONMD, sepsis, SLE, mixed connective tissue disease. 4. Glucocorticoids, antivirals, cytostatics, intravenous immunoglobulin, rituximab.

Task #15

Patient N., 18 years old, was admitted to the surgical department with complaints of fever up to 37.5°C, abdominal pain, nausea, vomiting of brown contents, liquid black stools. A week ago he had an acute respiratory illness, after which he began to be bothered by pain in knee and ankle joints, hemorrhagic rashes appeared on the skin of shins, thighs and buttocks, sharp, contraction-like pains in the abdomen. The patient's condition is of average severity. The skin is pale. On the skin of the anterior surface of the shins, thighs and buttocks small-point hemorrhagic rash, merged in the area of the knee joints. Knee and ankle joints are enlarged in volume, movements in them are limited due to pain. No rales are heard in the lungs. Heart rhythm is correct, tones are audible, HR 100 per minute. BP 110/70 mm Hg. Tongue moist. The abdomen is retracted, sharply painful on palpation in the epigastric region, where weakly positive peritoneal symptoms are determined. Palpation in the lumbar region is painless on both sides. Clinical blood analysis: hemoglobin 80 g/l; hematocrit 36%; reticulocytes 6‰; platelets 315x109 /l; leukocytes 17,0x109 /l; bacilli 7%; segmented 63%; lymphocytes 23%; monocytes 6%; eosinophils 1%; sedimentation rate 54 mm/hour. EGDS: Multiple erosions and small hemorrhages were detected on the gastric mucosa. No signs of ongoing bleeding were revealed General urinalysis: relative density 1018, protein 0.9 g/l, glucose 0.0, leukocytes 1-2 in the field of view, erythrocytes -50-60 in the field of view. Biochemical and immunologic blood tests: total bilirubin 16 μmol/l; AST 14 units/l; ALT 23 units/l; creatinine 75 μmol/l; urea 12 mmol/l; total protein 76 g/l; protein fractions: albumin 56%, alpha1 4,2%, alpha2 14,8%, beta 13,8%, γglobulin 25,7%. CRP 28 units; rheumatoid factor negative.

Questions: 1. Make a differential diagnosis. 2. Assign additional studies. 3. Determine the tactics of patient management.

Answers. 1. Hemorrhagic vasculitis, other systemic vasculitis, COVID-19, SLE, appendicitis. 2. Abdominal and renal ultrasound, coagulogram. 3. Bed rest, ascorutin, direct anticoagulants, proton pump inhibitors, ointment with NSAIDs on the joints.

Task No. 16

Patient P., 75 years old, was admitted to the therapeutic department with complaints of intense pulsating headaches in temporal, parietal, mandibular regions, increasing at night, when talking or chewing, body temperature up to 37.8o C, profuse night sweating, decreased appetite, sharp decrease in vision, dizziness, general malaise. She considers herself sick for 3 years, when she began to notice severe pain and stiffness in the muscles of the shoulder and hip girdle, temperature rise to 38o C. She was hospitalized in the hospital. She was hospitalized in the hospital of her place of residence, where on the basis of clinical picture, laboratory data (increased COE above 30 mm/hour and CRP 18 mg/dl) the diagnosis of polymyalgia was made and prednisolone 20 mg/day was prescribed. On the background of drug therapy the pain disappeared. The patient took prednisolone for the next 3 years, with gradual reduction of the drug dose to 1/8 tablet per day. Then she completely gave up taking prednisolone due to the improvement of her condition, which led to the appearance of the above-mentioned complaints. Heredity is not aggravated. Drug allergy is not noted. For a long time arterial hypertension with a maximum rise to 200/100 mmHg, adapted to BP 140-150/ 80 mmHg. Outpatiently takes losartan 50 mg per day. On examination: condition of average severity. Consciousness is clear. The position is active. Body build is correct. Constitution asthenic. Reduced nutrition. The skin is pale in color. Lymph nodes are not enlarged. No peripheral edema. Painful pea-sized granulomas along the temporal arteries are visible and clearly palpated (Fig. 1). Figure 1. "Clear-cut" left temporal artery Pulsation on the temporal arteries is reduced. Muscles are painless on palpation. Movement in the joints in full. HR 16 per min. Vesicular breathing in the lungs, no rales. Heart borders are not dilated percutaneously. Heart tones are muffled, rhythm is correct, no murmurs are heard. HR - 100 beats/min, BP 150/80 mm Hg. The tongue is clean, moist. The abdomen is normal in shape, soft, painless on palpation in all parts. Liver, spleen are not enlarged. Symptom of jabbing is negative on both sides. Physiologic departures are normal. Clinical blood analysis: hemoglobin - 113 g/l, erythrocytes - 4.12×1012/l, color index - 0.82, leukocytes - 12.3-109 /l, bacilli - 11%, eosinophils - 4%, segmentonuclear - 60%, basophils -0%, lymphocytes - 22% monocytes - 3%; platelets - 650×109/l, sedimentation rate - 52 mm/hour. Urinalysis: straw color, incomplete transparency, protein, glucose, ketone bodies - absent, epithelium - single cells in the field of view, leukocytes - 0-1 in the field of view. Biochemical blood analysis: total protein - 64 g/l, urea - 4.8 mmol/l, glucose - 5.5 mmol/l, ALT - 48.1 units/l, AST - 31.4 units/l, LDH - 488.0 units/l, ALP - 143 units/l, CRP - 48.0 mg/dl. Proteinogram: total protein 64.9 g/L, albumin 43 g/L, alpha1 - 3.5 g/L, alpha2 - 6.3 g/L, beta -9.7 g/L, gamma - 23.5 g/L. ECG: sinus rhythm, HR - 105 per 1 min, normal position of the electrical axis of the heart, myocardial hypertrophy of the left ventricle. Fluorography of the lungs did not reveal any pathology. X-ray of the skull: no pathology of the vault was revealed. The Turkish saddle is not enlarged, the walls are smooth. On MRI - picture of few supra- and infratentorial foci of gliosis, more probably of vascular genesis; single postischemic lacunar cysts; not sharply expressed external hydrocephalus. Leukoaraiosis. Deformation of the brain bridge by the main artery. Signs of additional formation on the border of the left frontal and parietal region (more likely a site of dilated vessel). Ophthalmologist consultation: signs of anterior ischemic optic neuropathy.

Questions: 1. Formulate a preliminary clinical diagnosis. 2. Make a plan of examination. 3. With what diseases should the differential diagnosis be carried out? 4. What treatment should be prescribed to the patient.

Answers. 1. Gigantocellular vasculitis. 2.USDG of temporal arteries, CT angiography of cerebral vessels, biopsy of temporal artery. 3. Atherosclerosis of cerebral vessels, rheumatic polymyalgia, rheumatoid arthritis. 4. GLucocorticosteroids, including pulse therapy, methotrexate, hypotensive, anticoagulants.

Task No. 17

Patient A., 67 years old, came to the clinic due to pain and periodic swelling of the hand joints. She decided to examine herself, and the results showed an increase in rheumatoid factor of 868 IU/mL. The patient is emotionally asthenic, she says that she has been experiencing constant health problems for the last 2-3 years. The condition of her teeth has sharply deteriorated, dry mouth is a constant concern, but her blood sugar values are within normal limits. Recently I underwent an ultrasound of the abdominal cavity due to the fact that I began to notice heaviness in the abdomen on the left side. The ultrasound showed a significant enlargement of the spleen (24x12 cm) and the patient was referred to a hematologist. Also, over the past few months, the patient noted loose stools, flatulence, presence of poorly digested food residues in the stools. She lost 6 kg in six months. The patient complains that she is so depressed by the changes occurring to her that she cannot even cry - no tears. On examination there is some injection of conjunctiva of both eyes, there is a slight swelling in the parotid areas. The tongue is dry, covered with white plaque, neck caries of many teeth. No signs of joint inflammation were detected during examination. Body temperature is 37.4°C. From laboratory data there is only a general blood analysis, in which no significant changes were noted. COE 52 mm/hour.

Questions: 1. What disease can be suspected on the basis of these changes? 2. What tests can be used to confirm the diagnosis? 3. What is the treatment plan for this disease?

Answers. 1. Sjögren's disease. 2. ANA immunoblot, salivary gland biopsy, salivary gland ultrasound. 3. Glucocorticosteroids, cytostatics, rituximab.

5. Content of assessment tools for interim certification

Intermediate certification is carried out in the form of a credit.

5.1 List of control tasks and other materials necessary for assessment of knowledge, skills, abilities and experience of activity *(the teacher specifies only those tasks and other materials that he/she uses within the framework of this discipline)*

Assessment tool 1. Situational tasks (p. 4.4).

Assessment tool 2. Questions for credit (p. 5.1.2).

5.1.2 Questions for credit in the discipline "Fundamentals of Gastroenterology".

Question	Competence code (according to the RPA)
Opportunities and limitations of immunologic diagnostics in rheumatologic diseases	UK - 1, 4, 5 PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Joint syndrome: definition of concepts, mechanisms of formation. Principles of therapeutic tactics.	UK - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Systemic manifestations of rheumatologic diseases: definition of concepts, mechanisms of formation.	UK - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Systemic lupus erythematosus. Classification criteria. Etiology, pathogenesis. Diagnosis. Treatment	UK - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Systemic scleroderma. Classification criteria. Etiology, pathogenesis. Diagnosis. Treatment, differential diagnosis.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Antiphospholimide syndrome. Definition of concepts. Etiology, pathogenesis. Classification criteria, morphologic and clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Inflammatory myopathies. Definition of concepts. Etiology, pathogenesis. Classification, morphologic and clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Rheumatic polymyalgia. Definition of concepts. Etiology, pathogenesis. Classification, morphologic and clinical parallels.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Gigantocellular vasculitis. Etiology, pathogenesis. Classification, morphologic and clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Takayasu's disease (nonspecific aortarteritis). Etiology, pathogenesis. Classification, morphologic and clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
ANCA-positive vasculitides. Definition of concepts. Etiology, pathogenesis. Classification, morphologic and	UK - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8,

clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment.	9, 10, 13, 16, 19, 22.
Small vessel vasculitides. Definition of concepts. Etiology, pathogenesis.Classification, morphologic and clinical parallels. Clinical picture. Complications. Diagnosis, differential diagnosis. Treatment.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Antinuclear and antiphospholipid antibodies. Their role in the diagnosis of systemic connective tissue diseases.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
ANCA antibodies. Their role in the diagnosis of systemic vasculitis.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
General blood, urine, biochemical tests, their role in the diagnosis of rheumatologic diseases.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Kidney damage in rheumatologic diseases. CKD - concept, classification. Diagnosis, approaches to therapy.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Cardiac damage in rheumatologic diseases. Variants. Diagnosis, approaches to therapy.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.
Lung damage in rheumatologic diseases. Variants. Diagnosis, approaches to therapy.	UC - 1, 4, 5; PC - 1, 2, 3, 4, 5, 5, 6, 7, 8, 9, 10, 13, 16, 19, 22.

6. Criteria for assessing learning outcomes

Learning Outcomes	**Evaluation criteria**	
	No credit	**Pass**
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were gross errors.	The level of knowledge in the scope corresponding to the training program. Minor errors may be made
Existence of skills	Basic skills were not demonstrated when solving standard problems. There were gross errors.	Demonstrated basic skills. Typical problems are solved, all tasks are completed. Minor errors may be made.
Availability of skills (possession of experience)	Basic skills were not demonstrated in solving standard problems. There were gross errors.	Demonstrated basic skills in solving standard problems. Minor errors may be made.
Motivation (personal attitude)	Learning activity and motivation are weakly expressed, readiness to solve tasks is qualitatively absent	Learning activity and motivation is demonstrated, readiness to fulfill tasks is demonstrated.

Characteristics of competence*	The competence is not fully formed. The available knowledge, skills and abilities are not sufficient to solve practical (professional) tasks. Repeated training is required	Formation of the competence meets the requirements. The available knowledge, skills, abilities, skills and motivation are generally sufficient for solving practical (professional) tasks.
Level of competencies*	Low	Medium/High

For testing:

Grade "5" (Excellent) - points (100-90%)

Grade "4" (Good) - score (89-80%)

Grade "3" (Satisfactory) - score (79-70%)

Less than 70% - Unsatisfactory - Grade "2"

Developer(s):

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