

MANAGEMENT OF PATIENTS WITH MAIN SYMPTOMS AND SYNDROMES IN RHEUMATOLOGY

A 35-year-old woman complains of pain in her left arm that progresses over the last 4 months and intensifies after physical exertion of the affected limb. Additionally, she notes a cold and «tingling» sensation in her arm. The pain decreases slightly at night, when the arm hangs down from the bed. Moreover, the woman notes deteriorating vision and the weight loss of 4 kg. She does not smoke. Objectively, she is underweight, the pulse on the left arm cannot be found. There is no pulsation over the left carotid artery, a murmur is heard above the right carotid artery. **Make the diagnosis**

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- A. Neurological amyotrophy
- B. Dermatomyositis
- C. Systemic lupus erythematosus
- D. Obliterating aortoarteritis
- E. Arterial thrombosis of the left arm

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A 30-year-old man complains of intense pain, skin redness, swollen ankle, and fever of 39°C. The onset of the disease was sudden. In the past, he had similar episodes that lasted 5–6 days without changes in the joint. The skin over the ankle joint is hyperemic, without clear margins or an infiltrative bank on the periphery. **Make the diagnosis:**

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A 66-year-old man complains of marked weakness. The onset of the disease was acute: he developed fever and pain in the joints and along the muscles of his legs. Objectively, he has a violet-cyanotic erythema around his eyes and over the knee joints. His heart rate is 120/min., heart sounds are weakened. Blood test: leukocytes – $12 \cdot 10^9/\text{L}$, ESR – 40 mm/hour. **Make the diagnosis:**

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- A. Reactive polyarthritis
- B. Systemic lupus erythematosus
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- D. Atopic dermatitis
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A 39-year-old man undergoes treatment in the surgical department for acute cholecystitis. He was transferred to the therapy department due to an increase in blood pressure to 180/120 mm Hg, protein excretion with urine, and persistent fever. This persistent subfebrile body temperature was resistant to antibiotic therapy. 10 days after the treatment, the patient had an asphyxia attack with difficult expiration. Later, he developed arthralgias and erythematous skin lesions. Eosinophil levels in the blood are 18%. **What disease can be suspected in this patient?**

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- A. Nonspecific aortoarteritis
- B. Polyarteritis nodosa
- C. Acute glomerulonephritis
- D. Systemic lupus erythematosus
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An 18-year-old young man complains of pain in his knee and ankle joints and a fever of 39.5°C. A week and a half before, he had a case of respiratory disease. Objectively, his body temperature is 38.5°C, his knee and ankle joints are swollen. His pulse is 106/min., rhythmic. His blood pressure is 90/60 mm Hg. The heart borders are normal, the heart sounds are weakened, and there is a soft systolic murmur at the apex. **What parameter is most closely associated with the possible etiology of this process?**

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A 31-year-old woman complains of pain and swelling in her radiocarpal and metacarpophalangeal joints and morning stiffness for up to 1.5 hours. These signs are observed for the last 3 years. Two weeks ago she developed pain, swelling, and redness in her knee joints and fever of 37.5°C. Examination of her internal organs shows no pathological changes. She was diagnosed with rheumatoid arthritis. **What changes will most likely be visible on the X-ray scan of her joints?**

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- A. Multiple marginal osteophytes
- B. Narrowing of the joint space, subchondral osteosclerosis
- C. Cysts in the subchondral bone
- D. Narrowing of the joint space, erosions (bone lesions)
- E. Osteolysis of the epiphyses

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A 31-year-old woman has been suffering from systemic scleroderma for 14 years. She underwent multiple inpatient treatment courses. She complains of intermittent dull pain in the area of her heart, palpitations, shortness of breath, headache, swollen eyelids, weight loss, and painful and deformed joints in her limbs. The prognosis of her condition will be worse if the following organ is affected:

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B. Heart

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A 60-year-old woman complains of pain in the interphalangeal joints of her hands that exacerbates during work. Objectively, the distal and proximal joints of her fingers II-IV are deformed, painful, have Heberden and Bouchard nodes, and their mobility is limited. X-ray of the joints shows narrowed joint spaces, marginal osteophytes, and subchondral sclerosis. **Make the diagnosis:**

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- A. Psoriatic arthritis
- B. Reiter disease (reactive arthritis)
- C. Bekhterev disease (ankylosing spondylitis)
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- E. Osteoarthritis deformans, nodular form

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A 59-year-old woman complains of pain and edema in the small joints of her hands, shortness of breath, weakness. This condition lasts for 8 years already. Objectively, her body temperature is 37.8°C, she has fine punctate hemorrhages on her torso and limbs, ulnar deviation of the hands is observed. The borders of the heart are shifted to the left, a systolic murmur can be detected over the apex. Her pulse is 96/min. Her blood pressure is 170/100 mm Hg. Complete blood count shows the following: erythrocytes — $3.2 \cdot 10^{12}/L$, Hb — 108 g/L, leukocytes — $6.8 \cdot 10^9/L$, platelets — $220 \cdot 10^9/L$, ESR — 48 mm/hour, C-reactive protein (+++). General urinalysis shows the following: specific gravity — 1016, protein — 2.8 g/L, leukocytes — 10–12 in the vision field, erythrocytes — 2–4 in the vision field.

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A 27-year-old man came to a doctor with complaints of pain and swelling in his toes II and III on the left foot, redness of the eyes and purulent discharge from them, and painful urination. Patient history taking revealed that the patient has several sexual partners and rarely uses condoms. Physical examination revealed bilateral conjunctivitis and dactylitis of the toes. Blood test shows ESR of 40 mm/hour. X-ray of the toes detects an increase in the volume of soft tissues and joint space narrowing. **What is the most likely diagnosis in this case?**

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

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- A. Systemic scleroderma
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- E. Sepsis

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- C. Heberden's nodes
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A 23-year-old patient complains of swelling and pain in the knee and elbow joints, rapid heartbeat, and a fever of 38.0. The patient has a history of an acute respiratory viral infection that occurred 2 weeks ago.

Objectively, swelling of knee and elbow joints is observed. Pulse — 94/min., transverse cardiac diameter — 14 cm. Auscultation detects weakening of the first heart sound and a systolic murmur at the apex.

Complete blood count: leukocytes — $9.1 \cdot 10^9/L$, ESR — 18 mm/hour.

Urinalysis: protein — 0.033 g/L, leukocytes — 6–8 in sight. ECG shows sinus tachycardia, PQ interval — 0.24 seconds.

What is the most likely diagnosis in this case

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A 25-year-old man complains of a headache, an elevated body temperature, and a rash. According to the patient's medical history, three weeks ago he had a case of an acute respiratory viral infection. Objectively, the following is observed: petechial rash on symmetrical parts of the body, mainly on the legs and buttocks, body temperature — 37.4°C, blood pressure — 110/80 mm Hg. Complete blood count: erythrocytes — $3.2 \cdot 10^{12}/L$, hemoglobin — 110 g/L, color index — 0.9, platelets — $160 \cdot 10^9/L$, leukocytes — $8.7 \cdot 10^9/L$, eosinophils — 4%, basophils — 0%, band neutrophils — 7%, segmented neutrophils — 56 26%, monocytes — 7%, ESR — 17 mm/hour. **What is the most likely diagnosis in this case?**

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A 38-year-old patient complains of pain in the lower back and left knee and ankle joints. Blood test results: leukocytes — $11 \cdot 10^9/L$, ESR — 38 mm/hour, CRP — ++, ASL-O titer — 125 units, uric acid — 375 $\mu\text{mol/L}$, rheumatoid factor — negative. Chlamydia were detected in the urethral swab. X-ray shows that the articular surfaces on the left are uneven, indistinct, the joint space is narrowed. **What is the most likely diagnosis in this case?**

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- A. Gouty arthritis
- B. Ankylosing spondylitis
- C. Rheumatoid polyarthritis
- D. Spinal osteochondrosis
- E. Reactive polyarthritis

A 38-year-old patient complains of pain in the lower back and left knee and ankle joints. Blood test results: leukocytes — $11 \cdot 10^9/L$, ESR — 38 mm/hour, CRP — ++, ASL-O titer — 125 units, uric acid — 375 $\mu\text{mol/L}$, rheumatoid factor — negative. Chlamydia were detected in the urethral swab. X-ray shows that the articular surfaces on the left are uneven, indistinct, the joint space is narrowed. What is the most likely diagnosis in this case?

- A. Gouty arthritis
- B. Ankylosing spondylitis
- C. Rheumatoid polyarthritis
- D. Spinal osteochondrosis
- E. Reactive polyarthritis

A 24-year-old woman has been noting a cold sensation in her fingers for the last three years. During such episodes, her fingers become cyanotic-white and numb. After 5–10 minutes pass, the skin becomes red and the fingers warm up, which is accompanied by sharp pain. **What is the most likely diagnosis in this case?**

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- A. Sjogren's disease
- B. Raynaud's disease
- C. Obliterating atherosclerosis
- D. Obliterating endarteritis
- E. Buerger's disease

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A 34-year-old woman complains of pain and stiffness throughout the day in the small joints of her hands and feet, as well as in her knee and ankle joints. According to the patient's medical history, the disease onset was 4 years ago, when she first developed pain and swelling in the small joints of the hands and feet and a fever of 38°C. Six months after the onset of the disease, she developed deformation of the joints in her hands and their limited mobility. Objectively, marked muscle atrophy is observed on the backs of her hands and in her knees and thighs. Blood pressure — 110/65 mm Hg, pulse — 92/min. Blood test results: rheumatoid factor — ++, seromucoid — 0.375 units, CRP — +++. X-ray of the hands reveals osteoporosis, narrowing of the joint spaces, and erosions (usurations) in the wrist joints. **What is the most likely diagnosis in this case**

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- A. Rheumatoid arthritis
- B. Ankylosing spondyloarthritis
- C. Reactive arthritis
- D. Osteoarthritis
- E. Systemic scleroderma

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A. Rheumatoid arthritis

B. Ankylosing spondyloarthritis

C. Reactive arthritis

D. Osteoarthritis

E. Systemic scleroderma

An 18-year-old girl complains of pain in her knee and ankle joints and a fever of 38.5°C. She has a history of acute tonsillitis that occurred 2 weeks ago. Objectively, the following is observed: edema of the joints, pain and limited mobility, annular erythema on the torso and proximal parts of the limbs. Auscultation detects the heart rate of 95/min., weakened heart sounds, and a soft systolic murmur over the apex. **What is the most likely diagnosis in this case?**

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- A. Systemic lupus erythematosus
- B. Systemic scleroderma
- C. Rheumatoid arthritis
- D. Acute rheumatic fever
- E. Reactive arthritis

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A. Systemic lupus erythematosus

B. Systemic scleroderma

C. Rheumatoid arthritis

D. Acute rheumatic fever

E. Reactive arthritis

A 42-year-old woman complains of morning stiffness in the joints of her hands, a feeling of tightness in the skin of her face, and difficulty swallowing food. Objectively, she has facial amimia, her oral cavity has a "pouch-like" narrowing, her fingertips are pale and cold to the touch. Auscultation detects arrhythmic and weakened heart sounds and systolic murmur over the apex. Blood test revealed the following: erythrocytes — $3.2 \cdot 10^{12}/L$, leukocytes — $6.7 \cdot 10^9/L$, ESR — 35 mm/hour. **What is the most likely diagnosis in this case?**

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- A. Rheumatism
- B. Rheumatoid arthritis
- C. Sjogren's syndrome
- D. Systemic lupus erythematosus
- E. Scleroderma

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- A. Rheumatism
- B. Rheumatoid arthritis
- C. Sjogren's syndrome
- D. Systemic lupus erythematosus
- E. Scleroderma

A 27-year-old woman complains of pain and morning stiffness in the small joints of her hands. Her condition is weather dependent. Objectively, she presents with swelling and deformation of her proximal interphalangeal joints and her second and third metacarpophalangeal joints. X-ray of the hands detects bone erosions (usurations) and signs of osteoporosis. **What is the most likely diagnosis in this case?**

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- B. Systemic lupus erythematosus
- C. Systemic scleroderma
- D. Rheumatic polyarthritis
- E. Psoriatic arthritis

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A. Rheumatoid arthritis

B. Systemic lupus erythematosus

C. Systemic scleroderma

D. Rheumatic polyarthritis

E. Psoriatic arthritis

A 12-year-old girl complains of high body temperature, muscle pain, and difficulty swallowing food. Objectively, the following is observed: periorbital edema with a pink-purple tint, pain and decreased muscle tone on palpation, capillaritis in the area of the finger pads and palms, expanded borders of the heart, muffled heart sounds, hepatosplenomegaly. Laboratory testing revealed increased levels of creatinine in blood and urine. **What is the most likely diagnosis in this case?**

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- A. Systemic lupus erythematosus
- B. Scleroderma
- C. Dermatomyositis
- D. Periarteritis nodosa
- E. Juvenile rheumatoid arthritis

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- A. Reactive polyarthritis
- B. Ankylosing spondylitis
- C. Rheumatoid polyarthritis
- D. Spinal osteochondrosis
- E. Gouty arthritis

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A. Reactive polyarthritis

B. Ankylosing spondylitis

C. Rheumatoid polyarthritis

D. Spinal osteochondrosis

E. Gouty arthritis

A 27-year-old patient complains of pain in the symmetrical joints of the hands, fever, and morning stiffness. The disease onset was acute. Laboratory testing detected rheumatoid factor, high titer of C Reactive protein, and high titer of antibodies to citrullinated vimentin. X-ray revealed isolated erosions of interphalangeal joints.

What initial basic treatment must be prescribed in this case?

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- A. Celecoxib
- B. Methotrexate
- C. NSAIDs
- D. ACE inhibitors
- E. Xanthine oxidase inhibitors

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A 30-year-old woman has a history of three spontaneous miscarriages and one premature childbirth. Examination revealed a positive reaction to anticardiolipin antibodies and lupus anticoagulant. **What is the most likely diagnosis in this case?**

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- A. Antiphospholipid syndrome
- B. Stein-Leventhal syndrome
- C. Hemorrhagic syndrome
- D. Sheehan syndrome
- E. Testicular feminization syndrome

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A 60-year-old woman complains of limited mobility in her distal interphalangeal joints of both hands observed for 12 years and periodic pain in her back. Objectively, nodular thickening of the distal interphalangeal joints of both hands is observed, fingers are deformed, mobility is limited. No other pathology was detected. Results of blood and urine tests are within the normal range. **What is the most likely diagnosis in this case?**

A 60-year-old woman complains of **limited mobility in her distal interphalangeal joints of both hands observed for 12 years and periodic pain in her back**. Objectively, nodular thickening of the distal interphalangeal joints of both hands is observed, **fingers are deformed**, mobility is limited. No other pathology was detected. Results of blood and urine tests are within the normal range. What is the most likely diagnosis in this case?

- A. Gout
- B. Rheumatoid arthritis
- C. Ankylosing spondyloarthritis
- D. Osteoarthritis
- E. Reactive arthritis

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Examination detected 24-hour proteinuria of 2.2 g in a 30-year-old woman. Biopsy revealed changes in the glomerular capillary walls in the shape of wire loops. **What morphological form of kidney damage is indicated by the biopsy results?**

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- A. Diffuse lupus glomerulonephritis
- B. Mesangial glomerulonephritis
- C. IgA nephropathy
- D. Membranous glomerulonephritis
- E. Nephrosclerosis

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