

Management of a patient with joint syndrome

1. A 36-year-old man has been suffering from rheumatoid arthritis for 8 years. Two months ago he developed swelling of the left knee joint that was resistant to treatment. Objectively, he has synovitis of the left knee joint. A puncture of the joint was performed, obtaining 50 mL of exudate. What cells will be detected during the examination of the puncture material obtained from the joint?

Answers:

- Erythrocytes
- Ragocytes
- Eosinophils
- LE cells
- Reed-Sternberg cells

Keywords

- rheumatoid arthritis for 8 years;
- knee joint swelling that is resistant to treatment;
- synovitis with exudate.

Correct answer

- Ragocytes

2. 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?

Answers:

- Rheumatoid arthritis
- Rheumatism
- Scleroderma
- Sjogren's syndrome
- Systemic lupus erythematosus

Keywords

- morning stiffness in the joints of her hands, a feeling of tightness in the skin of her face, and difficulty swallowing food.
- facial amimia,
- pursed mouth
- pale and cold finger tips
- arrhythmic and weakened heart sounds and systolic murmur;
- ESR - 35 mm/hour.

Correct answer

Scleroderma

3. 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?

Answers:

- Optic nerve atrophy
- Retinal detachment
- Cataract
- Blepharitis
- Iridocyclitis

Keywords

- Bekhterev disease (ankylosing spondylitis) for 2 years.
- reduced spinal mobility, painful sacroiliac joint,
- erythrocyte sedimentation rate - 45 mm/hour.
- X-ray: narrowing of the intervertebral disc space and of the sacroiliac joint.

Correct answer

Iridocyclitis

4. A 16-year-old adolescent has been hospitalized with complaints of unceasing nasal hemorrhage and unbearable pain in his right elbow joint. Objectively: the large joint is enlarged and deformed, the skin over the joint is hyperemic. Arthropathy signs can be observed in the other joints. Ps- 90/min. Blood test: erythrocytes - $3,9 \cdot 10^{12}/l$, Hb- 130 g/l, color index - 1,0, leukocytes - $5,6 \cdot 10^9/l$, platelets - $220 \cdot 10^9/l$, ESR- 6 mm/hour. Lee-White coagulation time: start- 24', end- 27'10". What drug would be most efficient in the treatment of this patient?

Answers:

- Aminocaproic acid
- Calcium chloride
- Vicasol (Menadione)
- Concentrated red cells
- Cryoprecipitate

Keywords

- unceasing nasal hemorrhage and unbearable pain in right elbow joint;
- enlarged and deformed joint, the skin over the joint is hyperemic;
- Arthropathy signs in the other joints;
- Lee-White coagulation time: start- 24', end- 27'10".

Correct answer

Cryoprecipitate

5. A 40-year-old man complains of impaired vision, rapid heartbeat, and an aching pain in the muscles of his back, lumbar region, and legs and in his shoulder and hip joints. Objectively, the signs of uveitis can be observed. X-ray detects blurring of the contours of the sacroiliac joints and single syndesmophytes between the vertebral bodies. Laboratory testing detects antibodies against HLA-B27 antigens, anemia, and ESR of 28 mm/hour. What disease causes such a clinical presentation?

Answers:

- Rheumatoid arthritis
- Systemic lupus erythematosus
- Deforming spondyloarthritis
- Ankylosing spondylitis
- Reiter's syndrome

Keywords

- A 40-year-old man;
- impaired vision, rapid heartbeat, and an aching pain in the muscles of his back, lumbar region, and legs and in his shoulder and hip joints;
- signs of uveitis;
- X-ray: blurring of the contours of the sacroiliac joints and single syndesmophytes between the vertebral bodies;
- antibodies against HLA-B27 antigens,
- anemia;
- ESR of 28 mm/hour.

Correct answer

Ankylosing spondylitis

6. 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:

Answers:

- Osteoarthritis deformans, nodular form
- Reiter disease (reactive arthritis)
- Rheumatic arthritis
- Bekhterev disease (ankylosing spondylitis)
- Psoriatic arthritis

Keywords

- pain in the interphalangeal joints of her hands that exacerbates during work;
- defigured, painful finger joints with Heberden and Bouchard nodes;
- limited mobility;
- X-ray: narrowed joint spaces, marginal osteophytes, and subchondral sclerosis.

Correct answer

Osteoarthritis deformans, nodular form

7. 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 - $3.2 \cdot 10^{12}/\text{L}$, Hb - 108 g/L, leukocytes - $6.8 \cdot 10^9/\text{L}$, platelets - $220 \cdot 10^9/\text{L}$, 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. What is the most likely diagnosis in this case?

Answers:

- Thrombocytopenic purpura
- Rheumatism
- Chronic glomerulonephritis
- Rheumatoid arthritis
- Systemic lupus erythematosus

Keywords

- pain and edema in the small joints of hands for 8 years;
- body temperature is 37.8^oC;
- fine punctate hemorrhages on her torso and limbs;
- ulnar deviation of the hands;
- systolic murmur over the apex;
- BP 170/100 mm Hg;
- Anemia, ESR - 48 mm/hour, C-reactive protein (+++);
- proteinuria.

Correct answer

Rheumatoid arthritis

8. 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 have been 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?

Answers:

- Narrowing of the joint space, usuras (bone lesions)
- Multiple marginal osteophytes
- Osteolysis of the epiphyses
- Narrowing of the joint space, subchondral osteosclerosis
- Cysts in the subchondral bone

Keywords

- pain and swelling in radiocarpal and metacarpophalangeal joints;
- morning stiffness for up to 1.5 hours;
- symptoms last for 3 years;
- pain, swelling, and redness in knee joints and fever of 37.5 C for 2 weeks;
- diagnosis: rheumatoid arthritis.

Correct answer

Narrowing of the joint space, usuras (bone lesions)

9. A 38-year-old patient complains of pain in the lower back and left knee and ankle joints. Blood test results were as follows: 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?

Answers:

- Reactive polyarthrititis
- Gouty arthritis
- Rheumatoid polyarthrititis
- Spinal osteochondrosis
- Ankylosing spondylitis

Keywords

- pain in the lower back and left knee and ankle joints.
- leukocytosis, ESR - 38 mm/hour, CRP - ++;
- ASL-O titer - 125 units, uric acid - 375 mcmmol/L;
- RF - negative;
- Chlamydia in the urethral swab;
- X-ray indistinct and uneven articular surfaces on the left, the joint space is narrowed.

Correct answer

Reactive polyarthrititis

10. During his visit to a doctor, the patient complained of pain in the joints. The patient's dietary history indicates that he prefers meat and fatty foods. After all the necessary examinations, the doctor diagnosed the patient with gout. What type of food products is recommended for the patient?

Answers:

- Legumes
- Animal fats
- Dairy products
- Offal
- Meat of young animals and poultry

Keywords

- pain in the joints;
- prefers meat and fatty foods;
- diagnosis: gout.

Correct answer

Dairy products

11. A 17-year-old girl complained of pain in her knee and ankle joints and body temperature of up to 39 C) 2 weeks ago she had a case of acute tonsillitis. Objectively, her joints are swollen, and sharply painful, and their mobility is reduced. There are barely visible circle-shaped pale pink spots on the skin of her trunk and limbs. Heart rate is 95/min, blood pressure is 90/60 mm Hg, heart sounds are weakened, there is a soft systolic noise over the apex. Make the provisional diagnosis:

Answers:

- Rheumatoid arthritis
- Acute rheumatic fever
- Systemic scleroderma
- Reactive arthritis
- Erythema nodosum

Keywords

- pain in the knee and ankle joints
- body temperature of up to 39 C
- acute tonsillitis 2 weeks ago;
- swollen, and sharply painful joints, reduced mobility;
- circle-shaped pale pink spots on the skin of trunk and limbs;
- HR 95/min, BP 90/60 mm Hg;
- weakend heart sounds and soft systolic noise over the apex.

Correct answer

Acute rheumatic fever

12. 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?

Answers:

- Rheumatic polyarthrititis
- Systemic scleroderma
- Psoriatic arthritis
- Rheumatoid arthritis
- Systemic lupus erythematosus

Keywords

- pain and morning stiffness in the small joints of hands;
- symptoms are weather-dependent;
- swelling and deformation of her proximal interphalangeal joints and her second and third metacarpophalangeal joints;
- X-ray of the hands: bone erosions (usurations) and signs of osteoporosis.

Correct answer

Rheumatoid arthritis

13. A 62-year-old man complains of moderate pain in his left foot in the area of his metatarsophalangeal joint. The pain intensifies on movement. The disease onset was 12 years ago, when he first had <<an acute pain attack>>. Two years ago, a yellow-white nodule appeared under the skin that covers the joint. Examination shows that the joint is deformed and cyanotic. X-ray of the affected joint shows narrowing of the joint space and well-defined bone tissue defects in the epiphysis (<<punched-out erosions>>). What is the most likely diagnosis in this case?

Answers:

- Osteoarthritis
- Rheumatoid arthritis
- Gouty arthritis
- Reactive arthritis
- Reiter's syndrome

Keywords

- moderate pain in the left foot in the area of his metatarsophalangeal joint;
- the pain intensifies on movement;
- 12 years since the first pain attack;
- the first tophus appeared 2 years ago;
- deformed and cyanotic joint;
- joint X-ray: narrowing of the joint space and well-defined bone tissue defects in the epiphysis (<<punched-out erosions>>).

Correct answer

Gouty arthritis