Ministry of education and science of Ukraine
V. N. Karazin Kharkiv National University

MANAGEMENT OF A PATIENT WITH BACK PAIN (SPONDYLOARTRITIS)

In two parts

PART I. AXIAL SPONDYLOARTRITIS

Methodical recommendations
for the preparation of students of higher education in the 6th year of study
in the discipline «Internal Medicine»

Electronic resource

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M 24 **Management** of a patient with back pain (spondyloartritis). In two parts. Part I. Axial spondyloartritis : methodical recommendations for the preparation of students of higher education in the 6th year of study in the discipline «Internal Medicine» [Electronic resource] / compil. T. M. Tykhonova, N. Ye. Barabash, N. V. Lysenko, L. O. Martymianova. – Kharkiv : V. N. Karazin KhNU, 2025. – (PDF 25 p.)

The methodical recommendations provide a definition of back pain syndrome and its diagnosis as a leading syndrome in spondyloarthritis in rheumatic patients based on complaints, anamnesis, objective examination and laboratory and instrumental diagnostics. The modern classification of spondyloarthritis is given, and the management of a rheumatic patient with back pain syndrome is shown on the example of axial spondyloarthritis.

For 6th year students for preparation for practical classes in Internal Medicine.

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CONTENTS

LIST OF ABBREVIATIONS

ACR – American Collegium of Rheumatologists

AS – ankylosis spondyloarthritis

ASAS – International Society of Spondyloarthritis Assessment

ASDAS (The Ankylosing Spondylitis Disease Activity Score)

– index of AS activity

AxSp – axial spondylitis

AxSpA – axial spondyloarthritis

BASDAI (Bath Ankylosing Spondylitis Disease Activity Index)

– index of AS activity

bDMARD – disease-modifying biological anti-rheumatic drugs

BP – back pain

CD – Crohn's disease

CRP – C-reactive protein

csDMARD – synthetic disease-modifying anti-rheumatic drugs

ESR – erytrocytes sedimentation rate

EULAR – The European Alliance of Associations for Rheumatology

GC – glucocorticoids

HLA-B27 – antigen of the major histocompatibility complex B-27

IBD – inflammatory bowel diseases

ICD-11 – International Statistical Classification of Diseases and Related Health Problems 11th Revision

IL-17-i – interleukin-17 inhibitor

MRI – magnetic resonance tomography

NSAID – non-steriod anti-inflammatory drugs

PsA – psoriatic arthritis

PSpA – peripheral spondyloarthritis

ReA – reactive arthritis

SpA	–	spondyloarthritis
TNF-i	–	tumor necrosis factor inhibitors
UC	–	ulcerative colitis

1. BASIC KNOWLEDGE, SKILLS, ATTAINMENTS NECESSARY FOR THE TOPIC STUDYING

Names of previous disciplines	Acquired skills
Foreign language	Be able to work with foreign literature to gain knowledge about modern methods of diagnosis and treatment of rheumatological diseases
Medical Informatics	To apply modern computer programs and be able to work with them, have statistical methods for processing the results of clinical studies, analyze the results of studies, be able to evaluate and interpret the results of clinical studies given in information sources, be able to work with electronic databases
Human anatomy. Normal physiology	To know the normal anatomy, structure and functions of the spine and joints. To understand and define the connection of structure and function of the musculoskeletal system with other organs and systems of the human body
Microbiology, Virology and Immunology	To analyze peculiarities of life activity of microorganisms, to know bases of antibiotic therapy. To understand the pathogenesis of human infectious diseases and their influence on the initiation of inflammatory/autoimmune processes with further development of rheumatic diseases
Pathomorphology. Pathophysiology	To know the typical pathological processes in the development of inflammation (including autoimmune), joint, cartilage and bone tissue destruction, impact of these changes on human's organs and systems, development of cause-and-effect relationships in the pathology of the whole organism. To describe and diagram the mechanism of development of typical pathological syndromes in rheumatological diseases, justify pathogenetic approaches to medical therapy
Pharmacology	Be able to navigate the nomenclature of medicines. To know the mechanism of action of medicines, their pharmacodynamics, indications and contraindications for their use. To know the peculiarities of clinical pharmacology of drugs used in the treatment of rheumatological diseases, the peculiarities of the pharmacological action of these drugs in different categories of patients, namely, the use in clinical practice of disease-modifying synthetic antirheumatic drugs, disease-modifying biological antirheumatic drugs and biosimilars

Pharmacology	To make an informed choice of individual drugs and therapy regimens, taking into account the principles of evidence-based medicine, optimisation of treatment regimens, to assess the effectiveness and safety of pharmacotherapy, taking into account the individual characteristics of the patient, the presence of concomitant diseases
Propedeutics of internal medicine	To conduct physical examination of rheumatological patients according to the recommended scheme with appropriate examination of the musculoskeletal system. To identify leading syndromes and symptoms in rheumatological diseases. To analyze the results of the main laboratory and instrumental investigations. Based on the physical examination of rheumatological patients and the additional investigations, to conduct differential diagnosis, to justify and to formulate clinical diagnosis

The student must know:

- spine and joints anatomy and functions;
- mechanisms of the spine, sacroiliac joints and other joints injury, including autoimmune;
- main risk factors and etiological factors, pathogenesis, clinic, differential diagnosis of rheumatic diseases with back pain;
- classification of rheumatic diseases, according to the international guidelines;
- the basic standards of instrumental and laboratory investigations, used for the examination of patients with rheumatic diseases with back pain;
- standards of diagnosis (diagnostic criteria) of rheumatic diseases with back pain in accordance with international guidelines;
- modern international standards and guidelines for the treatment of rheumatic diseases with back pain;
- possible prevention of rheumatic diseases with back pain;
- rehabilitation methods of preservation and improvement of quality of life of rheumatic patients with back pain.

Student must be able to:

- collect complaints, anamnesis;
- to conduct objective examination of rheumatic patient with back pain, according to the recommended scheme with appropriate examination of the musculoskeletal system (spine, sacroiliac joints, peripheral joints);
- to assess data of instrumental and laboratory investigations in rheumatic diseases with back pain;
- to diagnose the disease in a rheumatic patient with back pain, using diagnostic criteria;
- to perform differential diagnosis of rheumatic disease with back pain;
- on the basis of complaints, anamnesis, objective examination of the patient, instrumental and laboratory investigations, using diagnostic criteria, to make clinical diagnosis for rheumatic patient with back pain;
- to prescribe treatment according to the modern international standards and guidelines for treatment of rheumatic diseases with back pain;
- to recommend rehabilitation methods of preservation and improvement of quality of life for a patient with back pain.

2. TOPIC CONTENT

2.1. Definition of back pain syndrome

Lower back pain syndrome is defined as pain localized between the XII pair of ribs and the gluteal folds.

According to ICD-11, low back pain is classified as a disease of the musculoskeletal system and connective tissue, although neurological, rheumatological, traumatological and orthopaedic aspects are intertwined in this problem.

Back pain (BP) is the most common musculoskeletal disorder in adults, with a prevalence of up to 84 %, which makes it a serious social and economic problem.

According to the duration, there are two kinds of pain - acute (4 to 12 weeks) and chronic (≥ 3 months).

There are inflammatory and mechanical chronic BP. The inflammatory nature of pain in rheumatological patients, especially young people, requires the exclusion of spondyloarthritis (SpA).

The main signs of inflammatory BP are as follows:

– chronic nature (duration of more than 3 months);

– age of onset < 40 years;

– gradual development;

– improvement after exercise;

– no improvement at rest;

– night pain (with improvement after waking up).

Further examination of the musculoskeletal system, assessment of symptoms of other organs and systems, laboratory and instrumental data allow the doctor to determine the diagnosis of SpA.

SpA is a group of chronic inflammatory diseases of the spine, sacroiliac joints, peripheral joints, and entheses, characterised by common clinical,

radiological and/or magnetic resonance imaging (MRI) signs and genetic features, namely, association with the major histocompatibility complex antigen HLA-B27 (HLA-B27), presence of axial SpA (AxSpA), ankylosing spondylitis (AS), psoriatic arthritis (PsA), uveitis, chronic inflammatory bowel disease (IBD) in first and second line relatives. This is a group of chronic inflammatory rheumatic diseases that mainly affect the axial skeleton, with erosion and subsequent bone ankylosis in the spine and/or sacroiliac joints.

SpA is divided into axial and peripheral. Axial SpA – axial spondylitis (AxSp) is considered when the spine and sacroiliac joints are involved in the pathological process. Peripheral SpA (PSpA) is considered when the peripheral joints are involved. AxSpA can be divided into two subgroups: radiological, also known as AS, and non-radiological AxSpA. The main differences between these two subgroups are the presence or absence of structural changes in the sacroiliac joints diagnosed by plain radiography.

The prevalence of SpA in the world is 0.4–1.9 % (in Ukraine – 0.8 %). The onset of SpA usually occurs at the age of 20–40 years, but up to 8–10 % of patients are adolescents aged 12–18 years. Men are affected 4–7 times more often than women. Relatives of patients with SpA who are carriers of the HLA-B27 are 8–10 times more likely to have the disease.

In almost a quarter of patients with SpA, changes progress to AS over time, which is associated with male gender, organic damage to the spine/joints at the time of treatment onset, uveitis, smoking, inflammatory pain in buttocks, a high degree of disease activity (increased C-reactive protein (CRP) and/or erythrocyte sedimentation rate (ESR)).

Special laboratory tests, radiological and other instrumental investigations in the early stages of most rheumatic diseases that debut with inflammatory BP help to determine the diagnosis of SpA.

The general group of SpA includes a number of diseases, namely:

– Undifferentiated PSpA

– AxSpA: radiological - AS and non-radiological

– Juvenile spondylitis

– PsA

– Reactive arthritis (ReA)

– Arthritis associated with IBD – ulcerative colitis (UC) and Crohn's disease (CD)

Differential diagnosis of SpA is extremely important for establishing its type, early and timely initiation of pathogenetically determined treatment, improving prognosis, preservation of working capacity, duration and quality of life of rheumatological patients.

2.2. Axial spondyloarthritis – definition

AxSpA is a type of SpA characterised by chronic inflammation that primarily affects the axial skeleton, sacroiliac joints and/or peripheral joints. AxSpA covers people with radiographically visible structural damage to the sacroiliac joints or spine (radiographic AxSpA, also known as AS), as well as people without radiological evidence of structural damage (non-radiographic AxSpA). Non-radiographic and radiographic AxSpA are thought to exist on a continuum from mild to severe, although people with non-radiographic AxSpA may not necessarily develop radiographic AxSpA.

2.3. General information about a patient with Axial spondyloarthritis

General information about the patient with SpA (gender, age, appearance) in most cases can help to establish the correct diagnosis accurately and timely.

It is estimated that AxSpA affects 0.09–0.3 % of the population worldwide, depending on the geographic area. It tends to occur more often in white people than in other racial groups, but is equally common in men and women. Onset usually occurs at an early age, between late adolescence and age 40.

Approximately 90 % of patients with AxSpA are positive for the HLA-B27, highlighting the strong heritability of the condition. Although the exact

role of HLA-B27 in the pathophysiology of AxSpA is not clear, the current hypothesis is that HLA-B27 resembles or acts as a receptor for an inflammatory antigen (e.g., a bacterial antigen). Environmental risk factors for AxSpA may include exposure to microbes in childhood and lack of breastfeeding in genetically predisposed individuals, which is thought to alter the gut microbiota.

Clinical manifestations of the disease are characterised by significant polymorphism and depend on two items. First of all, the location of the lesion: axial with spine and sacroiliac joints involvement or peripheral with peripheral joints injury with or without spine and sacroiliac joints association. Secondly, the presence of domains: psoriasis of the skin and nails, eye lesions (acute anterior uveitis), dactylitis, enthesitis, lung lesions (pneumofibrosis, lung failure), heart lesions (aortic insufficiency, conduction disorders), nervous system lesions and concomitant IBD.

In some cases, the diagnosis of AxSpA is not difficult. For instance, in the later stages, the diagnosis of AS is established ad oculus (at first glance) - a typical ‘beggar's pose’; psoriatic skin and nail lesions confirm the diagnosis of PsA; an infectious disease that was caused by Chlamydia trachomatis, Yersinia enterocolitica, Shigella dysenteriae, Salmonella typhimurium, Campylobacter jejini a few weeks before does not exclude ReA.

2.4. Algorithm of Axial spondyloarthritis diagnosis

Diagnosis of AxSpA can be based on the criteria of classification established by the International Society of Spondyloarthritis Assessment (ASAS). According to these criteria, to be diagnosed with AxSpA, patients must be younger than 45 years of age and have BP for at least 3 months, and:

I – evidence of sacroiliitis on imaging (i. e. either definite radiographic sacroiliitis according to the modified New York criteria or active inflammation on MRI suggestive of sacroiliitis) **plus** at least one sign of AxSpA;

OR

II – presence of HLA-B27 **plus** at least two AxSpA signs.

Signs of AxSpA may include the following:

– inflammatory BP;

– arthritis;

– enthesitis (heel) ;

– uveitis;

– dactylitis;

– psoriasis;

– CD / UC;

– positive response to non-steroidal anti-inflammatory drugs (NSAID);

– AxSpA in family history;

– HLA-B27 positivity;

– elevated CRP levels.

Neither imaging nor laboratory test alone can be the only diagnostic criterion for AxSpA. However, imaging studies that reveal inflammatory changes in the sacroiliac joints and/or the spine are helpful in disease diagnosing. Typical radiological findings in patients with **AxSpA** include the following:

Sacroiliitis, which is inflammation leading to bone erosion and joint sclerosis. These changes are usually bilateral and symmetrical and progress gradually over time, first from subchondral bone erosion, then to irregular erosions of the sacroiliac joint margins (pseudo-extension), and then to sclerosis, narrowing and eventually – fusion (ankylosis).

Enthesitis peripheral and especially of the fibrous ring. Early radiological signs include a square shape of the vertebral bodies due to marginal erosion, while later signs may include sclerosis of the upper and lower edges of the vertebral bodies.

Syndesmophytes are asymmetrical, paravertebral, voluminous, interrupted, lumpy ossifications that most commonly affect the lower thoracic and lumbar

vertebrae. Syndesmophytes are usually marginal due to ossification of the fibrous ring. Over time, uninterrupted (bridge-like) syndesmophytes may develop, resulting in a ‘bamboo stick’ appearance. Radiological signs are present in only 40–70 % of cases and may be completely absent, even in severe disease.

In patients with suspected AxSpA, the European Alliance of Associations for Rheumatology (EULAR) recommends initial X-ray of the sacroiliac joints. If there are no specific radiological findings, but AxSpA is still suspected, EULAR recommends MRI of the sacroiliac joints, looking for both active inflammatory lesions (e.g. bone marrow edema) and structural lesions (e. g. bone erosion, new bone formation, sclerosis). Imaging modalities other than plain radiography and MRI are generally not recommended.

There are no specific laboratory tests for AxSpA. However, measurement of ESR and CRP, which are reactants of the acute inflammatory process, may indicate disease activity. Studies have shown that approximately 40–50 % of patients with AxSpA (including those with AS) have elevated ESR or CRP levels, and the degree of elevation may correlate with disease activity. Thus, ESR and CRP can be measured regularly to monitor disease activity and response to treatment. Testing for the human leukocyte antigen HLA-B27 positivity can confirm the diagnosis of AxSpA.

Quantification of disease activity using valid and reliable severity indices provides an objective basis for assessing changes in a patient's condition over time. Given the lack of objective biomarkers in the BASDAI (Bath Ankylosing Spondylitis Disease Activity Index), the ASAS developed a new tool in 2009 to assess the activity of AxSpA (including AS) – ASDAS (The Ankylosing Spondylitis Disease Activity Score). Both indices take into account the patients' assessment of their condition, but unlike BASDAI, ASDAS also includes the measurement of acute phase reactants, such as CRP or ESR.

AxSpA should be differentially diagnosed with other diseases accompanied by pain and/or inflammation of the spine or joints, such as degenerative disc disease, lumbar spondylosis, osteoarthritis, PsA, ReA, spinal stenosis, spondylolisthesis, spondylolysis and spondylosis.

2.5. Basic principles of treatment of patients with AxSpA

I. Recommendations of ASAS-EULAR and the American College of Rheumatology (ACR)

The ASAS-EULAR guidelines for the treatment of AxSpA highlight the main goals of treatment:

– control of symptoms and inflammation to maximise the patient's long-term health-related quality of life;

– preventing progressive structural damage to the musculoskeletal system;

– maintaining the patient's ability to work and socialize.

These goals are achieved with the help of non-pharmacological and pharmacological treatment methods.

Non-pharmacological interventions: patients should be educated about AxSpA, advised to stop smoking and encouraged to exercise. Providing patients with information about AxSpA is important so that they can make informed decisions about treatment options with their doctor based on evidence-based medicine. Given the association between smoking and disease activity, joint inflammation and syndesmophyte formation, smoking cessation may be beneficial, despite the lack of evidence to support this approach (ASAS-EULAR guidelines).

Exercise is a key component of the overall treatment plan for patients with AxSpA to help maintain joint mobility and function. Given the challenges associated with adherence to physical activity at home, physicians (rheumatologists) should consider the potential benefits of prescribing physiotherapy for patients as opposed to prescribing exercise at home.

The ACR strongly recommends physical therapy for individuals with AxSpA, and recommends supervised active exercise programmes over uncontrolled and/or passive exercise programmes, and land-based exercise programmes over water-based exercise programmes.

The ACR recommends that individuals with AxSpA participate in formal self-management training in an individual or group setting. This recommendation is explicitly stated only for individuals with radiographic disease (AS).

Medication interventions: The ASAS-EULAR and ACR guidelines include several types of pharmacological and/or surgical interventions:

– NSAIDs;

– local injections of glucocorticoids (GC) into the sacroiliac or peripheral joints;

– traditional synthetic disease-modifying anti-rheumatic drugs (csDMARDs);

– tumour necrosis factor inhibitors (TNF-i);

– interleukin-17A inhibitors (IL-17-i);

– analgesics;

– surgical treatment.

NSAIDs are the first line pharmacological therapy for symptomatic patients with AxSpA according to the ASAS-EULAR and ACR guidelines. Continuous use of NSAIDs at the highest tolerated dose is recommended as long as the potential benefits outweigh the risks, and there is no preference for one NSAID over another. If an NSAID taken at the maximum tolerated dose does not provide adequate pain relief after 2–4 weeks, doctor can try to switch to another NSAID. Treatment can be stopped or the dose reduced if symptoms of pain and stiffness decrease. However, continuous use should be considered if symptoms recur. If two different NSAIDs taken at the maximum dose for at

least 1 month do not provide adequate pain relief, ASAS-EULAR and ACR recommend switching to another class of medication.

Topical injections of GC can be considered for the treatment of arthritis and enthesitis in patients with AxSpA, despite the lack of direct evidence of benefit. In contrast, systemic use of GC should be prescribed with caution. The ASAS-EULAR guidelines indicate that short-term high-dose GC (≥ 50 mg/day) have only moderate effects in patients with AxSpA and emphasise the need to avoid long-term treatment with systemic GC.

The ACR strongly recommends against the use of systemic GC in patients with AxSpA, regardless of radiological status.

csDMARD are generally not recommended for patients with axial disease (i. e., AxSp), given their ineffectiveness in AxSpA. However, if peripheral arthritis coexists with AxSp, sulfasalazine (but not methotrexate or other csDMARD) may be considered.

For patients with AxSpA who have persistently high disease activity despite conventional treatment (e. g., NSAID), current practice is to initiate treatment with disease-modifying biological anti-rheumatic drugs (bDMARD), specifically TNF-i, according to ASAS-EULAR and ACR guidelines. Adalimumab, certolizumab pegol, etanercept and golimumab are approved for both radiographic and non-radiographic AxSpA, while infliximab is approved for radiographic AxSpA only. Although direct studies are lacking, the effectiveness of these drugs in improving the signs and symptoms of musculoskeletal disorders appears to be very comparable. There are differences in efficacy between the drugs for extra-articular manifestations (e. g., treatment of IBD, uveitis, psoriasis).

The ACR guidelines do not specify a minimum follow-up period after prescription of bDMARD, but ASAS-EULAR recommend to follow up patients after 12 weeks to assess the initial response to treatment, as evidence suggests that 20–40 % of patients will not respond to TNF-i therapy. Conversely, if

improvement is observed (e. g., ASDAS improvement ≥ 1.1 or BASDAI improvement ≥ 2), initial treatment should be continued if the rheumatologist considers it appropriate (e. g., toxicity is not a concern). If no improvement is observed, switching to another TNF-i or IL-17-i may be considered. IL-17-i approved for use in radiographic and non-radiographic AxSpA include secukinumab and ixekizumab.

According to the ACR guidelines, if there is no improvement on TNF-i, one of the following options is recommended.

– If there is no response after initial TNF-i treatment (primary non-response), IL-17-i treatment is recommended instead of another TNF-i treatment.

– If the patient initially responds to TNF-i treatment and then stops responding (secondary non-response), treatment with another TNF-i is recommended instead of treatment with another class of bDMARD.

– If the patient does not respond to or tolerates TNF-i and IL-17-i is contraindicated, treatment with sulfasalazine, methotrexate or tofacitinib is conditionally recommended instead of no treatment.

In special clinical situations, analgesics and surgery may be considered. The ASAS-EULAR guidelines indicate that analgesics (e. g. paracetamol, opioids/opioid-like drugs) may be considered for the management of persistent pain if all previously recommended treatments have failed, are contraindicated or are poorly tolerated.

Surgery may be considered in special circumstances. This includes:

1) total hip arthroplasty for patients with refractory pain or disability and radiographic evidence of structural damage;

2) corrective spinal osteotomy for patients with severe spinal deformities that have resulted in disability. Corrective spinal osteotomy should be performed only by surgeons experienced in this procedure, as it carries a high risk of neurological complications.

The only surgical intervention recommended by the ACR is total hip replacement for patients with advanced hip arthritis. The ACR does not recommend spinal osteotomy or spinal manipulation, unlike the European ASAS/EULAR guidelines.

Examples of the diagnosis of AxSpA

1. Axial spondyloarthritis (non-radiographic, visualised by MRI) of high activity (ASDAS-4.1), seropositive for HLA B-27, with right sacroiliac joint involvement – right-sided sacroiliitis, right Achilles tendon enthesitis, dactylitis of the 3rd toe of the left foot, uveitis (anamnesis).

2. Ankylosing spondyloarthritis, seropositive for HLA B-27, axial form of moderate activity (ASDAS-3.2), with lesions of the lumbar spine and sacroiliac joints - bilateral sacroiliitis (D-Rö grade II, S-Rö grade III).

3. Psoriatic spondyloarthritis, seronegative for HLA B-27, high activity (ASDAS-5.9), with right sacroiliac joint involvement – right-sided sacroiliitis (D-Rö grade III), knee and ankle joints. Psoriasis with scalp lesions, grade II. Psoriatic onychodystrophy.

TEST TASKS FOR SELF-CONTROL

1. What is the nature of the pain in axial spondyloarthritis as opposed to osteoarthritis?
A. Mixed;
B. Acute;
C. Inflammatory;
D. Mechanical;
E. Nocturnal.

2. All mentioned medications are used for the treatment of axial spondyloarthritis, except:
A. IL-17-i;
B. TNF-i;
C. NSAID;
D. GC;
E. β-blockers.

3. Syndesmophytes are:
A. Marginal bony outgrowths
B. Subchondral bone thickening
C. Bone bridges between vertebrae
D. Usuration of articular surfaces
E. All of the above

4. The main signs of inflammatory BP are the following, except:
A. Chronic nature (duration - more than 3 months);
B. Age of onset < 40 years;
C. Improvement after exercise;
D. Increased pain in the afternoon;
E. Night pain (with improvement after waking up).

5. What method of instrumental examination is used for axial spondylitis diagnosis?
A. US examination;
B. X-ray;
C. MRI;
D. CT;
E. DEXA.

6. The leading sign for the differential diagnosis between axial spondyloarthritis and reactive arthritis is:

A. Previous infection;
B. The presence of unilateral sacroiliitis;
C. Eye lesion;
D. Lesion of peripheral joints;
E. Damage to the spine.

7. Which method of instrumental examination is used to diagnose non-radiographic axial spondyloarthritis?
A. Scintigraphy;
B. MRI;
C. US examination;
D. DEXA;
E. CT.

8. Which disease is characterized by joint damage of the type of dactylitis?
A. Rheumatoid arthritis;
B. Gouty arthritis;
C. Osteoarthritis;
D. Rheumatoid arthritis;
E. Psoriatic arthritis;

9. Which laboratory test would be the most appropriate to confirm the diagnosis of spondyloarthritis?
A. CRP
B. HLA - B27
C. Rheumatoid factor
D. Serum uric acid
E. Antinuclear antibodies

10. Which disease does not belong to the group of spondyloarthritis?
A. Rheumatoid arthritis
B. Ankylosing spondylitis
C. Non-radiographic axial spondyloarthritis
D. Reactive arthritis
E. Psoriatic arthritis

KEYS

1 – C; 2. – E; 3. – C; 4. – D; 5. – B; 6. – A; 7. – B; 8. – E; 9. – B; 10. – A.

SITUATIONAL TASKS

1. A 30-year-old male patient with a 5-year history of pain in the lumbar spine, sharp limitation of mobility in the spine. Radiography of the sacroiliac joints shows bilateral erosion and narrowing of the joint spaces, osteoporosis. What methods of non-drug treatment are indicated for the patient?
A. Daily therapeutic exercises;
B. Yoga;
C. Therapeutic massage;
D. All of the above;
E. None of the above.

2. The patient is 43 years old, complains of pain in the lumbar, thoracic and cervical spine, accompanied by morning stiffness for more than 1 hour. Pain in the lumbar spine radiates to the buttocks. On examination: tenderness on palpation of the sacroiliac joints. Radiography of the sacroiliac joints: compaction of the closing plates due to subchondral sclerosis. Which posture is the most typical for advanced stage of this disease?
A. «Chin on the chest» posture;
B. Thoracic kyphosis;
C. Scoliosis;
D. Thoracic insufficiency syndrome;
E. Absence of kyphosis.

3. The patient, 28 years old, consulted a GP with complaints of pain in the lumbar and sacral spine, limitation of movements there, morning stiffness for up to 3 hours; pain and swelling of the left ankle joint. Positive Kushelevsky's symptoms. CBC: ESR – 38 mm/h, Hb – 98 g/l, WBC – 4.9×10^{9}/l, RBC – 3.2×10^{12}/l. The X-ray of the pelvic bones shows bilateral sacroiliitis, radiological stage III. What is the preliminary diagnosis?
A. Non-radiographic axial spondyloarthritis;
B. Ankylosing spondylitis;
C. Osteochondrosis;
D. Psoriatic arthritis;
E. Gouty arthritis.

4. The patient, 40 years old, has been ill for about 8 years. He complains of pain in the lumbar spine during physical activity, in the cervical and thoracic spine, especially when coughing, pain in the hip and knee joints on the right. Objectively: the torso is fixed in a forward tilt position with the head down, atrophy of the gluteal muscles. Spinal X-ray: osteoporosis of the vertebrae,

ossification of the longitudinal ligaments. What is the preliminary diagnosis of the patient?
A. Psoriatic spondyloarthritis;
B. Tuberculous spondylitis;
C. Ankylosing spondylitis;
D. Non-radiographic axial spondyloarthritis;
E. Common osteochondrosis of the spine.

5. A 21-year-old patient complains of BP that has been occurring for the last 6 months, in the morning. The pain decreases during the day and after physical activity. Objectively: movement restriction in the lumbar spine, increased muscle tone in the lumbar region and hunched back during movements. Spinal X-ray: no pathological changes. Which test will help confirm the patient's diagnosis?
A. Scintigraphy;
B. CT;
C. US examination;
D. DEXA;
E. MRI.

KEYS

1. – D; 2. – A; 3. – B; 4. – C; 5. – E.

RECOMMENDED LITERATURE

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Електронне навчальне видання комбінованого використання
Можна використовувати в локальному та мережному режимі

Тихонова Тетяна Михайлівна
Барабаш Надія Євгенівна
Лисенко Наталія Володимирівна
Мартим'янова Лариса Олексіївна

ВЕДЕННЯ ПАЦІЄНТА З БОЛЕМ У СПИНІ (СПОНДИЛОАРТРИТИ)

У двох частинах

ЧАСТИНА І. АКСІАЛЬНІ СПОНДИЛОАРТРИТИ

Методичні рекомендації
для підготовки здобувачів вищої освіти 6-го року навчання
з дисципліни «Внутрішня медицина»

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