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Clinical and Epidemiological Features of Ankylosing Spondylitis in a Hospital Condition

Nurmetov Kh.T., Marufkhanov Kh.M., Talipov R.M.,
Tashkent Medical Academy

Abstract: In the literature, there are practically no results of studies aimed at studying the clinical picture of ankylosing spondylitis (AS) in the actual practice of rheumatologists in Uzbekistan. Meanwhile, such studies can provide information not only about the epidemiological aspects of the disease, but also about the diversity of its clinical picture, medical and social significance, and allow assessing the effectiveness of therapy and planning the system of medical costs for the future.
Purpose of the study. To study the clinical and epidemiological features of ankylosing spondylitis according to the register in the 3rd clinic of the Tashkent Medical Academy.
Material and research methods. Retrospective studies were conducted at the 3rd clinic of the Tashkent Medical Academy with the analysis of 160 case histories of patients who received inpatient treatment for ankylosing spondylitis.
Conclusions. The diagnosis of AS in real practice is usually made later from the onset of the disease, which is largely due to ignorance of its clinical picture by specialists from other fields of medicine. The examined group of patients with AS is characterized by relatively high activity and pronounced functional impairments, which is primarily due to the peculiarities of patient selection.

Keywords: ankylosing spondylitis, prevalence, epidemiology, comorbid conditions

Introduction: Back pain is one of the most common symptoms encountered not only by a neurologist, but also by a therapist. And for almost a century, the most common diagnosis in this case was “osteochondrosis.” The evolution of views on this issue cannot be called rapid. From the middle of the 19th century. back pain was explained by inflammatory damage to the roots of the spinal nerves [1, 7], and in the first half of the twentieth century. there has been a tendency to associate it with the pathology of the intervertebral discs (“discosis”, disc herniation). It was then that the term “osteochondrosis of the spine” appeared, which was popularized by Soviet neurologists [14,15] and was used in diagnoses for both adolescents and old people. In our country, there is a persistent misconception that spinal osteochondrosis is the main cause of various dorsalgia. Meanwhile, signs of degenerative-dystrophic changes in the spine are found in half of middle-aged people and almost all elderly patients, but these signs are not always accompanied by back pain. Currently, until the cause of back pain is clarified, it is customary to make a diagnosis of dorsopathy, which is not a specific nosological form, but a whole group of diseases with similar clinical manifestations [17]. Sometimes, as a result of a careful study of the patient and a full examination, very unexpected and dramatic diagnoses “crystallize” from this vague term.

Ankylosing spondylitis (AS, ankylosing spondylitis) is a chronic systemic disease of the joints with a predominant localization in the sacroiliac joints (SIJ), spine and paravertebral soft tissues. AS is associated with carriage of the histocompatibility antigen HLA-B27 and belongs to the group of seronegative spondyloarthritis [16,18]. The prevalence of AS in the world ranges from 0.15 to 1.4% [8], in European countries – from 0.08 [10] to 0.26% [6], in Russia (2008) – 0.1% [18]. In women, the first radiographic changes appear much later than in men [9]. The onset of the disease at a young age and early disability emphasize the social importance of its timely diagnosis. From the moment the first signs of AS appear until the correct diagnosis is made, according to various authors, it takes from 3 to 10 years. A reliable diagnosis of AS is established in men only 8.4 years on average, and in women 9.8 years after the onset of AS.
Difficulties in early diagnosis may be associated with mild symptoms and clinical diversity in the onset of AS. The disease can manifest not only with pain in the lower back, SIJ, but also with peripheral arthritis, enthesitis, and uveitis. The main radiological criterion - reliable sacroiliitis - is often absent in the early stages of the disease.

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The main clinical symptom of AS, inflammatory pain in the lower back and spine, is a consequence of inflammation in the sacroiliac joints (SIJ) and vertebral structures [2,3]. At the onset of the disease and in patients with a high degree of activity, enthesitis, coxitis, damage to the eyes (uveitis) and heart (aortitis, conduction disturbances) are often observed [11,13].

AS is a continuously progressive rheumatic disease (RD) of great medical and social significance. The main contingent of patients are young people, and the disease often leads to long-term disability and early disability, thereby affecting the psychological state of patients and significantly worsening their quality of life. In the first 5 years of the disease, more than 20% of patients with AS become disabled, when the disease is more than 10 years old - 45%, and when peripheral joints are affected - 65% of patients. In the group of patients with a significant history of the disease, mortality rates are significantly higher than in the general population [18.5].

Considering the above, the purpose of our work was to analyze the clinical manifestations of AS in the real practice of a rheumatologist.

Purpose of the study. To study the clinical and epidemiological features of ankylosing spondylitis according to the register in the 3rd clinic of the Tashkent Medical Academy.

Material and research methods. Retrospective studies were conducted at the 3rd clinic of the Tashkent Medical Academy with the analysis of 160 case histories of patients who received inpatient treatment for ankylosing spondylitis. The diagnosis of Ankylosing spondylitis at the inpatient stage of treatment was established according to the existing criteria of national recommendations for the diagnosis and treatment of patients with Ankylosing spondylitis. As part of the planned study, a developed individual patient card of a single sample was filled out, consisting of questions for a retrospective assessment of the characteristics of the anamnesis, risk factors, and associated conditions.

Methods for statistical analysis of research results. Performed using the MEDIOSTAT statistical software package. Standard methods of variation statistics were used: calculation of the mean, standard deviation (M±m), Student's test ($p<0.05$).

Research results.

The average age of the patients was 35.7±12 years. Of these, 97.5% (n=156) were men, 2.5% (n=4) women. Among the patients who were included in the study, 41.9% (n=67) were invalids II, 7.5% (n=12) invalids I, 26.87% (n=43) were unemployed, 15% (n=24) employed, 9.4% (n=15) status was unknown (Fig. 1).

A complete blood count was carried out in 100% (n=161) of patients and the ESR averaged 25±0.7, ECG - in 99.4% (n=159), ultrasound - in 93.1% (n=149), radiography - in 96.9% (n=155) and MRI - in 4.3% (n=7).

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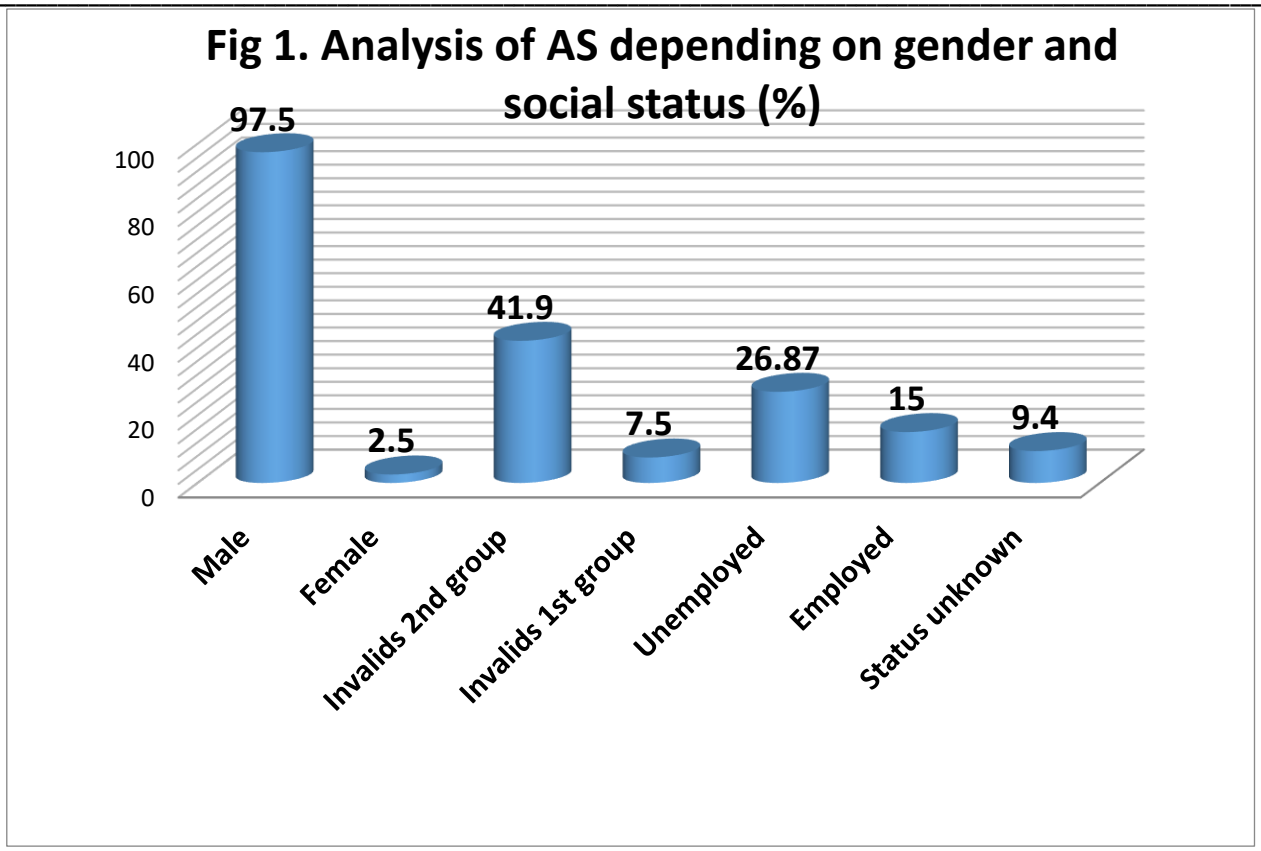

It was found that the incidence of AS of the central form is 82.5% (n=132), peripheral form 11.9% (n=19), rhizomyelic form 3.1% (n=5) and Scandinavian form 2.5% (n =4).
In 86.25% (n=138) of cases, complications of AS were identified: IFJ III in 10% (n=16), IFJ II in 71.25% (n=114), IFJ I in 5% (n=8), uncomplicated variants of AS were registered in 13.75% (n= 22) of cases (Fig. 2).

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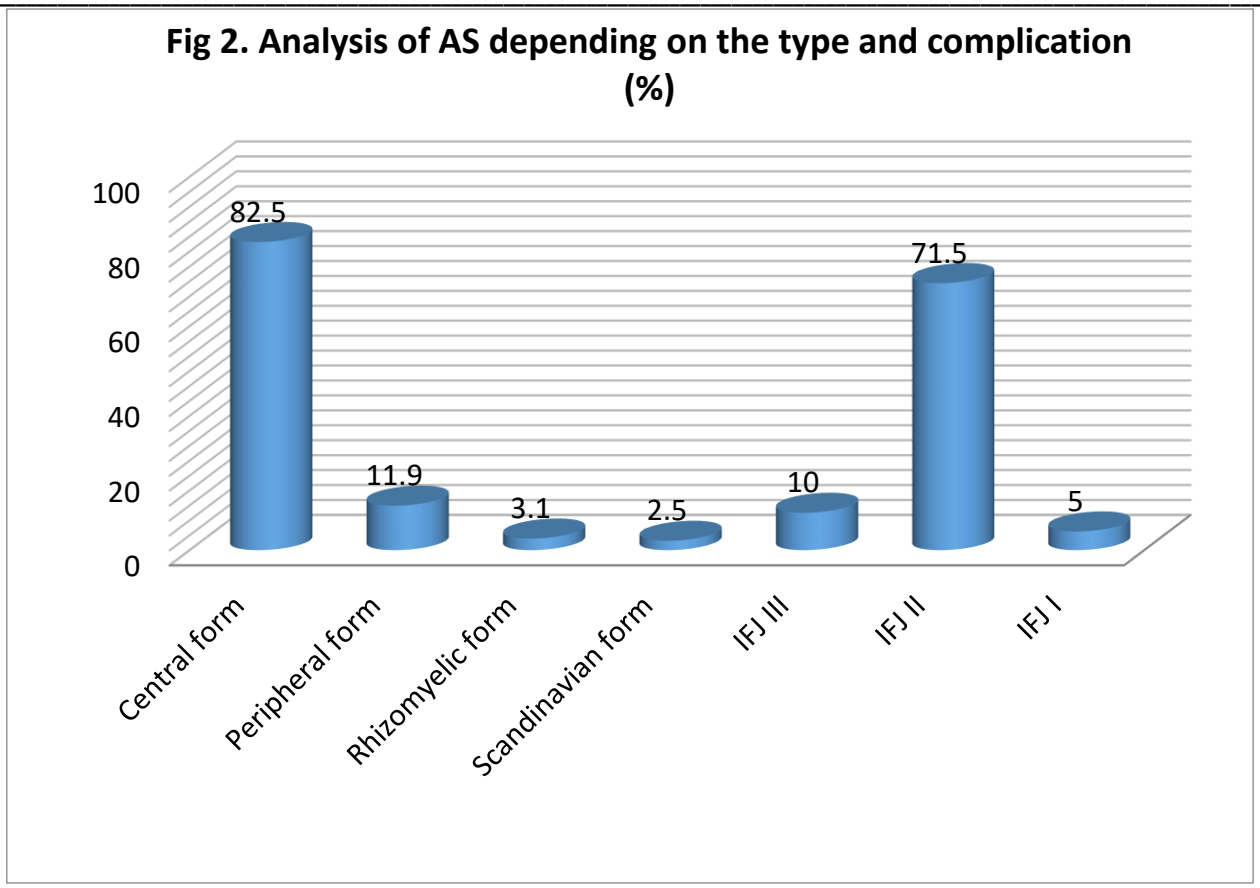
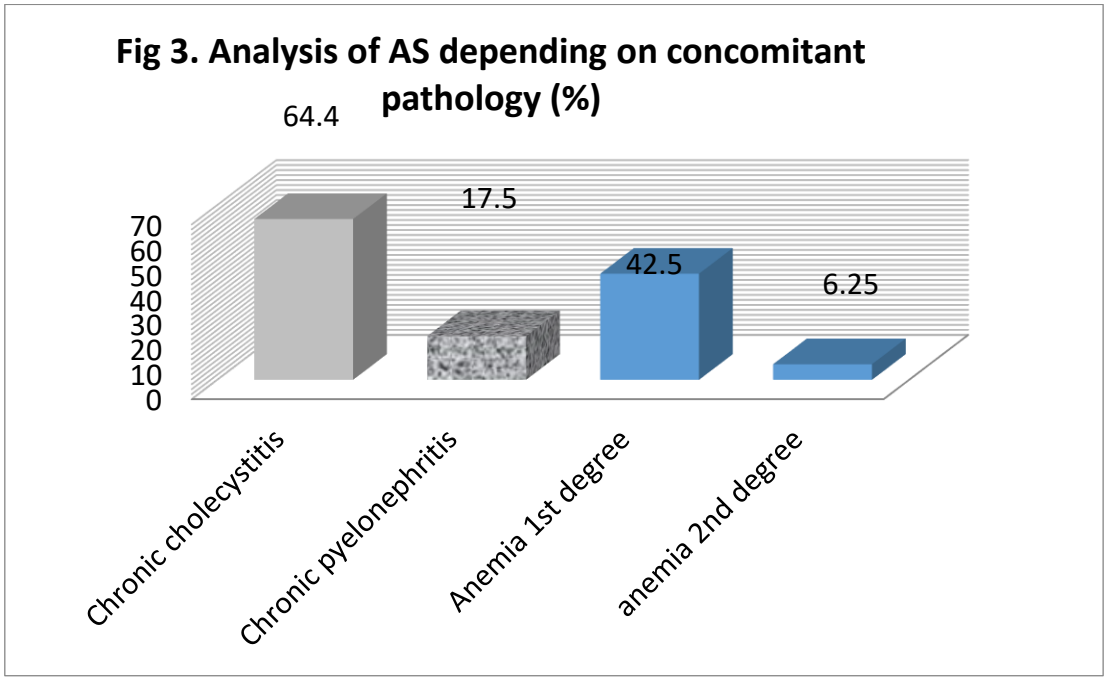


AS in 64.4% (n=103) of cases was detected against the background of chronic cholecystitis, 17.5% (n=28) of cases against the background of chronic pyelonephritis. Anemia of stage I was 42.5% (n=68) and stage II anemia was 6.25% (n=10). At the same time, the average hemoglobin index was 112±7.07, the color index was 0.8±0.07 (Fig. 3).



ECG analysis showed that sinus tachycardia was detected in 22% (n=35) of cases, sinus bradycardia 1.9% (n=3), sinus arrhythmia 17.5% (n=28), including extrasystole in 1.3% (n= 2), AV block I stage in 1.9% (n=3), bundle branch block 8.1% (n=13), short QT syndrome in 3.1% (n=5) and LVH in 16.9% (n=27) patients.

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Analysis of ultrasound diagnostics of internal organs revealed that 33.1% (n=55) of cases have hepatomegaly, signs of chronic 73.1% (n=117), calculous cholecystitis 2.5% (n=4) including signs of chronic nephritis 17.5% (n=28) and MCD in 5.6% (n=9) of patients.

X-ray analysis showed that 95% (n=152) of patients had bilateral sacroiliitis, 53.1% (n=85) cases of intervertebral spondyloarthritis, 11.25% (n=18) cases of coxarthrosis, scoliosis in 4.3% (n =7) patients and endoprosthetics in 2.5% (n=4) of patients.

Discussion: Based on retrospective studies, it was revealed that the average age of the patients was 35.7 years, compared with literature data, 5-6 years younger. Disability among patients is higher than average statistics for Europe and Russia (55.4% of disabled people). This indicator may be associated with late diagnosis, on the one hand, and, on the other hand, late referral of patients (as well as the quality of medical services). The occurrence of AS forms did not differ much from the literary data. Complication rates were higher compared to literature data; almost 90% of patients had a complication. Concomitant pathologies were found in all patients, regardless of the form of the disease. Anemia of varying degrees was detected in 48.75% of patients. From the cardiovascular system, 55.8% were diagnosed with various types of heart rhythm disturbances. Ultrasound of internal organs showed the presence of hepatomegaly in 38% of patients, bile duct disease in 75.6% of patients, including bile stone disease in 2.5% of patients. Changes in the kidneys were observed in 33.6% of patients.

Conclusions: The diagnosis of AS in real practice is usually made later from the onset of the disease, which is largely due to ignorance of its clinical picture by specialists from other fields of medicine. The examined group of patients with AS is characterized by relatively high activity and pronounced functional impairments, which is primarily due to the peculiarities of patient selection.

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