The course of ankylosing spondylitis and the possibilities of BRT

K.G. Khachumova, L.N. Vorontsov
(Medical center "Life force", GKB 4, Moscow, Russia)

Ankylosing spondylitis (AS) is a joint disease leading to earlydisability of the working part of the population, which includes social and economic aspects.

The aim of our study was to study markers of early disabilitydiseases and study of the effect of BRT on the course of the disease.

Predictors of severe AS with the possibility of disability in the first year of the disease are: acute onset of the process, systemic lesion, clinical and laboratory activity, high degree of functional impairment, ineffectiveness of NSAIDs, the classic variant of the onset of the disease.

Ankylosing spondylitis is one of the rheumatological diseases most often leading to the disability of patients.

According to E.R. Agababova (1997), 30% of patients with AS receive a disability group. At the same time, a significant part of the disabled are persons under the age of 30. The prevalence of AS according to statistical data is 1: 200 of the adult population (0.05%) [3]. However, the true prevalence appears to be higher.

Material and methods

A total of 86 patients with AS were examined, of whom 70 were men, 16 were women. The average age of the patients was 32 ± 7.6 years. The study period lasted 6 years. Disability received 54 patients (63%), without disability - 32 patients. Concomitant diseases were present in 3% of patients (cholecystitis, chronic gastritis, mitral valve prolapse).

72% of patients with ankylosing spondyloarthritis of the total number of disabled people (56) received a disability group 3 years after the onset of the disease.

Early disability is associated with high AS activity, acute onset of the disease., Disease progression, NSAID ineffectiveness [1], AS under the guise of other diseases [9]. Late diagnosis of AS leads to late prescription of therapy for the disease, which leads to chronicity of the process and subsequent disability.

results

According to our data, an acute onset was observed in 45.3% of patients with disabilities and in 3.5% without it (p = 0.009). Systemic lesion was detected in 34.4% of disabled people and in 4.7% of patients without disabilities (p = 0.005), the third X-ray stage was detected in 30.2% of patients with disabilities and in 9.3% without it (p = 0.0048). The most common variant of joint damage in patients with disabilities is classic (44.2%), and in patients without disabilities - lumboischialgic) 20.9%)

The activity of the II degree process was diagnosed in disabled people in 39.5% of cases, without disability - in 3.5% of cases. Degree II dysfunction when comparing groups with and without disabilities turned out to be statistically insignificant (44.2% and 23.3%, p> 0.05).

In the first group, patients without disabilities were observed: men - 69% (22), women - 31% (10). In the group of patients, the 1st degree of activity was noted in 33.7% and the 2nd - 3.5%, the predominance of the lumboischialgic variant of the course of the disease - 20.9%, with the minimum percentage of acute onset of the disease and the systemic manifestation of AS (Table 1) ... Patients in this group complained of pain in the heels (23%), lumbar spine (63%), sweating (45%), fatigue (78%), limited mobility in

cervical spine (32%). ESR in this group did not exceed 20 mm / h, dysproteinemia was observed in 19% of cases, an increase in acute phase proteins - 11%. Functional joint failure was pronounced in 23%. The pain score by VAS was within 2-3, indices of daily activity BASFI - 38, BASDAI - 32. Heart rhythm and conduction disturbances were detected in 10% of cases, aortic lesions - in 12%.

The second group was also dominated by men - 89% (48), women accounted for 11% (6). In patients with early disability (group 2), acute onset of AS with early extra-articular manifestations prevailed (45.3%), the ESR level reached 30 mm / h or more, dysproteinemia (76%), an increase in acute phase proteins (53%). All patients had pronounced functional joint failure. Self-service was especially difficult, walking up the stairs. The BASFI daily activity index exceeded 40, the BASDAI index was also above 40, which indicated a high disease activity. When assessing pain on the VAS scale, the numbers reached 50. The course of AS in the 2nd group of the study in the first 36 months led to disability in 54 people (63%), of which 39 people received the III disability group,

The classic version of the onset of the disease prevailed among the patients who received disabilities in the early stages. The disease was manifested by a lesion of the spine, stiffness, the presence of pain of inflammatory genesis in the spine, lumbosacral spine. Nine people from the second group of patients had an articular variant of the onset of AS, which was manifested by pain in the peripheral joints (knee, hip, shoulder), enthesitis.

Examination of the heart and great vessels in the 2nd group revealed a disturbance in the rhythm and conduction of the heart in 50% of patients (bradycardia, tachycardia, pacemaker migration, extrasystole, atrial fibrillation, bundle branch blockade, abnormal AV conduction). Aortic involvement was detected in 30% of patients (increased echogenicity of the aortic root, aortic valve, enlargement of the aortic root).

No violations of the bronchopulmonary apparatus were revealed during the first year of observation.

Of 14 patients who received a disability group during the first year of illness, 11 at the time of discharge from the hospital had ESR above 30 mm / hour, pain in the joints due to physical activity. In this group of patients, increased fatigue, poor sleep, and anxiety about the future persisted, which is consistent with the literature data [9]. In 16 patients in complex treatment, BRT was performed according to the method of A.A. Hovsepyan (1st group), the control group (2nd group) underwent standard treatment. Against the background of the therapy, there was a more rapid relief of pain syndrome, normalization of laboratory parameters. In 3 patients with the onset of the disease, ESR decreased from 30 ± 2 mm to 7 ± 1.4 mm, the pain syndrome was completely arrested and the functional activity of the joints was restored

Table 1

Dynamics of the studied indicators against the background of the BRT

Study timing	1 month		3 months		6 months	
Study groups	1 gr., 16 people	2 gr., 16 people	1 gr.	2 gr.	1 gr.	2 gr.
More pain than in 3 joints	66%	68%	thirty %	44%	5 %	23%
Joint stiffness	eleven %	ten %	6%	7%	3%	6%
Limitation joint mobility	19 %	eighteen %	nine %	eleven %	eight %	ten %
ESR more than 20 mm / h	40%	37%	eighteen %	19 %	23%	eleven %

Discussion

Predictors of severe AS, according to our data, are the severity of clinical and laboratory parameters, systemic lesions, ESR above 30 mm / h, increased acute phase proteins, dyslipidemia, damage to the cardiovascular system in the form of rhythm disturbances, cardiac conduction, changes in the aortic valves, its root, a high degree of functional insufficiency of the joints. Risk factors for severe AS include male sex, young age, frequent spinal injuries, a profession associated with physical labor, stress, insolation, hypothermia.

These data correlate with literature data, where ESR above 30 mm / h are indicated as predictors of disability [4], limited mobility of the spine, ineffectiveness of NSAIDs, oligoarthritis [9], damage to the hip joints in 50% of patients with severe disease [1].

We found that in the early stages of the disease, disability up to a year occurs in 11.6% of patients, the main group of patients receives a disability for this disease after 3 years or more from the onset of the first symptoms of the disease (25.6%). In this regard, an algorithm for optimizing the diagnosis of the early period of AS is proposed.

At the first stage of the diagnostic search, attention is paid to complaints of a nonspecific nature, which long (5%) precede the appearance of characteristic symptoms: progressive weakness, easy fatigue, decreased appetite, sweating, weight loss, subfebrile condition.

Risk factors include unfavorable working conditions (70%), previous infections (25%), spinal trauma (12.5%), hypothermia (5%), emotional stress (5%), excessive insolation (2.5%)), heredity (2.5%).

At the second stage of diagnosis, the localization of pain is determined, which was observed in 17.6% of cases in the first month of the disease and in 77.5% in the first year of the disease. The pain intensifies in the early morning hours and at night, decreases in the afternoon. Pain is localized in the region of the sacrum, buttocks, ilio-sacral joint. Radicular pain without neurological symptoms is noted. Shingles chest pain appears at the beginning of the first year in 4.8% of those observed and in 45% of patients at the end of the first year.

An early manifestation of AS in young people was pain in the heels, peripheral arthritis with damage to the shoulder and hip joints. The frequency of occurrence of these signs of AS by the end of the first year of the disease was 18.8% of cases in the patients we examined. In addition, in the early stages, a limitation of the chest excursion (less than 2.5 cm) and a decrease in the mobility of the cervical and thoracic spine in 3 planes were revealed.

The onset of the disease in severe cases was presented by the classical variant (44%), in less severe cases - by the lumboischialgic variant (21). In 15% of the patients examined by us at the onset of AS, there was a combined nature of the lesion of the musculoskeletal

apparatus.

In 3.2% of cases, one of the extra-articular manifestations of the onset of the disease may be anterior uveitis. Sometimes it precedes joint damage [3].

The third stage of diagnostics is laboratory, including X-ray and immunological research. X-ray diagnosis is confirmed in 6.3% in the first month and in 60% of cases in the first year. CT and MRI can detect changes in the sacroiliac region in the early stages [5–8]. Early x-ray changes in the spine are erosions in the upper and lower corners of the vertebral bodies. In doubtful cases, scan the vertebrae and sacroiliac joints.

Another reliable marker of AC is the detection of HLA B 27. According to N.A. Mukhina (2001), the incidence of HLA B 27 in AS exceeds 90%. In our study, the incidence of HLA B 27 ranged from 6.3% in the first month of illness and 37.5% at the end of the first year.

Identification of this antigen is important for early diagnosis and prognosis of a severe course of the disease in young men with insufficient information content of X-ray data [2].

Conclusion

Predictors of severe AS with the possibility of disability in the first year of the disease are: acute onset of the process, systemic lesion, clinical and laboratory activity, high degree of functional impairment, ineffectiveness of NSAIDs, the classic variant of the onset of the disease.

The risk factors that determine the severity of the course of the disease include: male gender, young age, profession associated with physical activity, frequent infections, spinal injuries, insolation, emotional stress, hypothermia, hereditary factor.

To prevent disability in the late stages of the disease, timely diagnosis and therapy of AS, including complex therapy with the use of BRT, is necessary, which makes it possible to quickly stop the pain syndrome and achieve long-term remission.

Literature

1. Badokin V.V., Agababova E.R., Shubin S.V. Place of glucocorticosteroids in therapy seronegative spondyloarthritis // Scientific and practical rheumatology. - 2001; 4. - P.48–55.

2. Nasonov EL, Nasonova VA Rheumatology. National leadership. - M .: Geotar-Media. - P.714.

3. Amor, B, Santos, RS, Nahal, R, et al. Predictive factors for the long-term outcome of spondyloarthropathies // J. Rheumatol. - 1994; 21 .-- P. 1883.

4. Batlle-Gualda E., Figueroa M., Ivorra J. et al. The efficacy and tolerability of aceclofenac in the treatment of patients with ankylosing spondylitis: A multicenter controlled clinical trial // J. Rheumatol. - 1996; 23. - P.7.

5. Dougados M., van der Linden S., Leirisalo-Repo M. et al. Sulfasalazine in the treatment of spondyloarthropathy. A randomized, multicenter, double-blind, placebo-controlled study. Arthritis Rhum. - 1995, 38. - P.618–27.

6. Dougados M., Dijrmans B., Khan M. et al. Conventional treatments for ankylosing spondylitis // Ann. Rheum. Dis. - 2002; 61 (Suppl III). - P.40-50.

7. Ferraz MB, Tugwell P., Goldsmith CH, Atra E. Metaanalysis of sulfasalazine in ankylosing spondylitis // J. Rheumatol. - 1990; 17. - P. 1482-6.

8. McGonagle D., Khan MA, Mazzo-Ortega H. et al. Enthesitis in spondyloarthritis. // Curr. Opin. Rheumatol. - 1999; 11, 4. - P.244-50.

9. Ward DD Health related quality in ankylosing spondylitis: a survey of 175 patients // Arthritis Care Res. - 1999; 12. - P. 247–55.

Khachumova, K.G. The course of ankylosing spondylitis and the possibilities of BRT / K.G. Khachumova, L.N. Vorontsova // XXIII International Conference "Theoretical and Clinical Aspects of the Application of Bioresonance and Multiresonance Therapy". - M .: IMEDIS, 2017 .-- S.10-15.