Psoriatic arthritis: a retrospective study of 162 patients

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**Aim.** The aim of our study was to determine the prevalence of psoriatic arthritis in the patients with psoriasis and to analyze retrospectively the results of a 34-year multidisciplinary management of the patients with psoriatic arthritis. **Methods.** The study included 162 out of 183 treated patients with psoriatic arthritis, aged 48 ± 15 years. All the patients satisfied the current diagnostic criteria for psoriasis and psoriatic arthritis according to the American College of Rheumatology. **Results.** Psoriatic arthritis developed in 183 (9.3%) out of 1976 patients with psoriasis. Time interval for establishing the diagnosis was 4 years. A positive family history of the disease had 15.0% of the studied patients. Its onset was most often at 42 years of age in 70.4% of the cases, and 2 months to 59 years after the appearance of psoriasis. Psoriatic arthritis without psoriasis appeared in 1.8% of the patients. A severe form of arthritis had 64.2% of the patients, mainly the patients with scalp psoriasis ($\chi^2 = 3.2; p < 0.05$). Nail changes had 35% of the patients. Distal interphalangeal joints were involved in 63.6%, axial skeleton in 36.4%, oligoarthritis in 45.0%, polyarthritis in 55.0%, and mutilating form in 6.8% of the patients. Elevated Erythrocyte Sedimentation Rate was revealed in 61.7% of the patients. Immunoglobulin M (IgM) rheumatoid factor was altered in 4.3% of the patients. The human leukocyte antigen (HLA) typing in the 28 patients were: A2 32.0%, A3 18.0%, A1 and A9 14.0%, A28 and A29 3.5%, B8 and B16 14.0%, B5 and B12 11.0%, B13, B15, B18, B27 and B35 7.0%. Radiologic changes were most often in hand and foot joints, less frequently in the knees and quite infrequently in hips and shoulders joints. Sacroiliitis was found in 46.4% of the patients. Psoriasis was treated with topical corticosteroids and salicylic ointments in all the patients, ultraviolet (PUVA therapy) in 5.6% and retinoids in 4.3% of them. Arthritis was treated with non-steroidal anti-inflammatory drugs, with systemic corticosteroids 41.3% and with disease modified antirheumatic drugs, most frequently methotrexate, 59.9% of the patients. Radiouclide synovectomy was performed in 6.8%, surgery in 6.2% and physical therapy in all the patients. **Conclusion.** Psoriatic arthritis developed in 9.3% of the psoriatic patients. Time interval for establishing the diagnosis was long, and there were no specific laboratory findings. All the synovial joints could be involved in the psoriatic process. Scintigraphy should be used only in case of early suspected sacroiliitis. The treatment of psoriatic arthritis was the teamwork between the dermatologist, rheumatologist, physiatrist and orthopedic surgeon.

**Key words :** psoriasis; arthritis; ointments; ultraviolet rays; antirheumatic agents; anti-inflammatory agents, non-steroidal; orthopedic procedures.

**Introduction**

Psoriatic arthritis (PsA) is a chronic inflammatory disease of the musculoskeletal system and skin, but other organs such as the heart, eyes, aorta, lungs, kidneys, can be affected, too. PsA belongs to the group of spondyloarthritis, characterized by the usually negative rheumatoid factor test, and in its pathogenesis, which has not been fully elucidated, genetic, immunologic and external factors are included (1–3). Psoriatic arthritis develops in about 10.0% of the psoriatic patients (4).
It is diagnosed on the basis of the American College of Rheumatology (ACR; formerly, the American Rheumatism Association) criteria, that is, on clinical findings and the characteristic radiologic changes of PsA, but the assessment of the current classification criteria validity is underway (5, 6). Severity of the disease is established by the time of onset in relation to the patient's age, arthritis extent, severity of inflammation, the degree of both radiologic changes and functional deficit (7). The treatment is multidisciplinary and includes topical and systemic drug, physical and surgical therapy.

The aim of this study was to determine the prevalence of psoriatic arthritis in the patients with psoriasis and to analyze retrospectively clinical, serological, immunogenetic, radiological and other parameters obtained during a 34-year multidisciplinary treatment of the patients with psoriatic arthritis.

Methods

The retrospective study included 162 patients with PsA treated at the Clinic of Rheumatology and Clinical Immunology and the Clinic of Skin and Veneral Diseases, in the Military Medical Academy, within the period from 1970 to 2004. One-hundred-eighty-three patients with this diagnosis were treated within this period, but the sample was retrospectively analysed, with available data for the majority of the observed parameters. All the patients satisfied the current criteria for psoriasis defined as the presence of typical cutaneous and/or nail changes confirmed by the dermatologist and for PsA defined as usually seronegative spondyloarthritis associated with the psoriasis. Laboratory samples of blood, urine, stool, synovial fluid and urethral swabs, the native mycologic test for skin and/or nail changes (samples were cultured), as well as radiography of the affected joints were performed. Other diagnostic methods were: HLA typing, ultrasonography of the heart, joints and tendons (3.5 and 7.5 MHz, Diasonix-USA), histopathologic examination of skin and joint synovial biopsy, ECG and skeletal scintigraphy with technetium (Tc 99m) together with the calculation of the sacroiliac index (Si-index). The SI index represents the ratio between accumulated radionuclides in the sacroiliac joint and sacral bone. Psoriasis affecting ≤30.0% of body surface was defined as the minimal skin damage, whereas affection of >30.0% of body surface was considered generalized psoriasis. A serious form of arthritis was defined when more than one joint was involved, with the localization in large joints, the presence of contractures, ESR>30 mm/h with the presence of anemic syndrome, radiologic III and IV degree changes after the Steinbrocker staging system and the disturbance of a patient's general condition.

Statistical analyses comprised of descriptive measures: the mean value, median, standard deviation and analytical measures. To test the differences between categories the Pearson's $\chi^2$ and McNemar tests, were used. Statistical significance was considered as $p<0.05$. All the statistical analyses were performed with SPSS, Windows version 11.5 (SPSS Inc; Chicago, IL).

Results

Of 162 patients, 117 were males and 45 females (ratio 2.61:1), aged 48 ± 15 years, from 17–78 years (mean, 46 years). From the onset of arthritis to the established diagnosis, 1–21 years passed (4 ± 4.8 years; median 2 years).

Epidemiologic data

Within the mentioned period, psoriatic arthritis developed in 183 (9.3%) of 1976 patients with psoriasis. On the average, 6 new cases were diagnosed per year. The greatest number of patients developed psoriasis at 35th year of age (36.2 ± 14.4; range, 3–69 years). In childhood, psoriasis affected 12 (7.4%) of the patients. Psoriatic arthritis was most frequently manifested at 42nd year of age (43.2 ± 14.3; range, 16–75 years).

Pathogenetic factors

A positive family history of the disease had the 25 (15.0%) of the patients, more frequently of psoriasis, and among the closest relatives. HLA typing to A and B loci antigens was performed in 28 (17.3%) of the patients and the findings showed the following frequencies: A2 32.0%, A3 18.0%, A1 and A9 14.0% each, A28 and A29 3.5% each, B8 and B16 14.0% each, B5 and B12 11.0% each, B13, B15, B18, B27 and B35 7.0% each, which did not reveal a significant difference in comparison with the frequencies of these antigens in the general population. Regarding external factors, the study revealed stress, infection, trauma, surgery, dependence and myocardial infarction in 32 (19.7%) of the patients. Coincidental autoimmune disease was not found in any of the patients.

Clinical presentation

In most cases, psoriasis preceded arthritis (114/70.4%), from 2 months to 59 years (mean 11 years, median 7 years); in 24 (14.8%) of the patients, arthritis appeared 1 to 15 years before psoriasis, but the simultaneous onset of skin lesions and arthritis had the 21 (13.0%) patients; psoriatic arthritis without psoriasis appeared in the 3 (1.8%) patients (Figure 1). According to the classification patterns, the involvement of the DIP joints was found in the 103 (63.6%) patients, of spinal and sacroiliac joints in the 59 (36.4%), oligoarthritis in 73 (45.0%) patients, polyarthritis in 89 (55.0%) and a mutilating form of arthritis in 11 (6.8%) patients. The frequency of rheumatic features in the early and in the advanced course of the disease is shown in Figure 2. Disturbance in general condition (fever, fatigue, weakness, weight loss) had 24 (14.7%) patients in the early stage of the disease and with the disease relapse. Morning stiffness was rarely reported by any of them. A severe form of arthritis was detected in 104 (64.2%), and a mild in 58 (35.8%) patients. The relation between skin lesions and arthritis activity was reflected either in the presence of positive correlation in 74 (55.6%) patients, or in its absence in 59 (44.4%) of them; data for 29 patients were lacking.
There were no patients without simultaneous relapses and remissions of both diseases. The frequency of clinical patterns of psoriasis is shown in Table 1.

Table 1

<table>
<thead>
<tr>
<th>Clinical pattern of psoriasis</th>
<th>%</th>
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<tbody>
<tr>
<td>Plaque psoriasis</td>
<td>39.7</td>
</tr>
<tr>
<td>Guttate psoriasis</td>
<td>0.4</td>
</tr>
<tr>
<td>Inverse psoriasis</td>
<td>14.0</td>
</tr>
<tr>
<td>Scalp psoriasis</td>
<td>59.3</td>
</tr>
<tr>
<td>Pustular psoriasis</td>
<td>2.0</td>
</tr>
<tr>
<td>Nail psoriasis</td>
<td>34.0</td>
</tr>
<tr>
<td>Erythrodermic psoriasis</td>
<td>3.8</td>
</tr>
</tbody>
</table>

In the 2 patients, psoriatic changes were localized in the eyebrow region. Minimal skin lesions had 99 (62.3%), and extensive ones 60 (37.7%) patients. In the group of patients with a serious form of arthritis there was no statistically significant difference regarding the extent of skin lesions. This also referred to the patients with mutilating arthritis. In the patients with psoriasis in the capi-

limum, a serious form of arthritis was more frequent as statistically significant ($\chi^2=3.3; p<0.05$). Nail lesions without skin involvement were found in the 2, they preceded arthritis and skin lesions in the 3, and in 8 of the patients they simultaneously appeared with skin psoriasis or PsA. For the remaining 42 patients the precise time of onset of nail lesions couldn’t be determined. Nail lesions were not more frequently encountered in the patients with distal joint disease ($p<0.05$). The frequency of extra-articular manifestations in patients with psoriatic arthritis are showed in Table 2.

Table 2

<table>
<thead>
<tr>
<th>Extra-articular manifestations in patients with psoriatic arthritis</th>
<th>n (%)</th>
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<tbody>
<tr>
<td>Aortic regurgitation</td>
<td>17 (10.5)</td>
</tr>
<tr>
<td>Ocular*</td>
<td>1 (0.6)</td>
</tr>
<tr>
<td>Mucous membranes†</td>
<td>26 (15.5)</td>
</tr>
<tr>
<td>Inflammatory bowel disease</td>
<td>2 (1.2)</td>
</tr>
<tr>
<td>Intestinal lung fibrosis</td>
<td>1 (0.6)</td>
</tr>
<tr>
<td>Nephrotic syndrome‡</td>
<td>2 (1.2)</td>
</tr>
</tbody>
</table>

*Anterior uveitis and conjunctivitis 16 (9.9%)
†Urogenital 20 (12.3%) and enteral infections
‡Secondary to renal amyloidosis and glomerulonephritis

n – number of patients

Laboratory findings

ESR was elevated in 100 (61.7%) of the patients. Increased fibrinogen levels were noticed in 46/87 (53.0%), C-reactive protein in 28/56 (50.0%), and haptoglobin in 7/11 (63.6%) patients. Anemia was present in 23 (14.2%), leukocytosis in 6 (4.0%), thrombocytosis in 3 (2.0%) of the patients. Polyclonal hypergammaglobulinemia was found in 21/59 (36.4%) patients, while 8/84 (9.5%) patients had the increased levels of uric acid. Positive IgM rheumatoid factor was found in 7 (4.3%) of the patients. Pathologic urine sediment had 44 patients, but infective agents were identified in only 9 (20.5%) of them. Synovial fluid analysis performed in 7 patients, confirmed Mycoplasma hominis in the 2 of them. Histopathologic findings in the articular synovial biopsy, performed in 5 patients, suggested nonspecific synovitis. Skin biopsy was performed in 50 (31.0%) patients, and histopathologic findings in all of them were consistent with psoriasis.

Radiologic changes

Radiologic I-IV degree of changes after Steinbrocker’s staging system were most often encountered in hand and foot joints, less frequently in the knees, and quite infre-
frequently in hips and shoulders joints. Two patients had temporomandibular joint subluxation, symmetrically. The forth, the most severe degree of radiologic changes was found in 19 (12.0%) of the patients. At first hospitalization, 97 (60.0%) patients complained about the presence of lumbosacral pain which resulted in radiologic examination of sacroiliac joints. Sacroiliitis was found in 45/97 (46.4%) patients, unilateral in the 21, and bilateral (more often symmetric) in the 24. Radiography of the spine was used in 72 (44.4%) of the patients, in whom psoriatic spondylitis was found with equal involvement regarding the cervical and lumbar, but much less frequently the thoracal spine in 14 (19.5%) of the patients. Atlantoaxial subluxation was seen in the 2, and spondylodiscitis L4/L5 in 1 patient. Phalangeal periostitis of hands and feet was found in 6/110 (5.4%) patients.

**Skeletal scintigraphy**

Skeletal scintigraphy was performed in 28 patients and in all of them the intensified accumulation of radionuclides in the inflamed joints was noted. Positive correlation between clinical and scintigraphic findings was found in 89 (45.8%) joints, while without clinically manifested arthritis, scintigraphic findings were positive in 106 (54.2%) joints. There were no cases of clinically manifested arthritis, but with negative scintigraphic findings. Sacroiliac index made for 19 patients showed the increased value in 13 (68.4%) cases revealing the presence of sacroiliitis: unilateral in 7 and bilateral, more often asymmetric, in 6 patients.

**Psoriatic arthritis associated with other diseases**

The coexistence of other diseases and psoriatic arthritis was not frequently encountered. The most frequent were: hypertension (41/25.4%), diabetes mellitus (12/7.4%), and duodenal ulcer (8/4.9%). In the 2, and spondylodiscitis L4/L5 in 1 patient.

**Table 3. Frequency, dosis and adverse effects of disease-modifying antirheumatic drugs (DMARD) in patients with psoriatic arthritis**

<table>
<thead>
<tr>
<th>DMARD</th>
<th>n</th>
<th>Drug dosis</th>
<th>Adverse effects (n)</th>
</tr>
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<tbody>
<tr>
<td>Methotrexate</td>
<td>62</td>
<td>7.5–25 mg/per week</td>
<td>Reactivation of lung tuberculosis (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mucositis (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Hepatotoxicity (cumulative dosis 1675 mg) (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Myelotoxicity (1)</td>
</tr>
<tr>
<td>Coloid gold</td>
<td>18</td>
<td>50 mg/per week</td>
<td>Alergic reaction (1)</td>
</tr>
<tr>
<td>Antimalarials</td>
<td>10</td>
<td>250 mg/d</td>
<td>Ocular toxicity (1)</td>
</tr>
<tr>
<td>Sulfasalazine</td>
<td>9</td>
<td>2 g/d</td>
<td>Alergic reaction (1)</td>
</tr>
<tr>
<td>Penicillamine</td>
<td>6</td>
<td>250 mg/d</td>
<td>Syndroma nephriticum (1)</td>
</tr>
<tr>
<td>Azathioprine</td>
<td>2</td>
<td>100–150 mg/d</td>
<td></td>
</tr>
<tr>
<td>Levamisole</td>
<td>1</td>
<td>150 mg/per week</td>
<td></td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>1</td>
<td>3–5 mg/kg/d</td>
<td></td>
</tr>
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</table>

n – number of patients

* Two DMARD were simultaneously given to 8 patients and ≥3 DMARD were given to 4 patients sequentially

Two DMARDs were simultaneously given to 8 (5.0%) patients. Radionuclide synovectomy was performed in 11 (6.8%), and the surgery (synovectomy and arthroplasty) in 10 (6.2%) of the patients. Physical therapy was applied in all the cases.

**Discussion**

Psoriatic arthritis was included into the classification of rheumatic diseases by the American Rheumatism Association for the first time 40 years ago, although the first description of arthritis was recorded at the beginning of XIX century. In our group, the diagnosis was established in 6 patients per year on the average, by using the criteria proposed by several authors, namely the presence of seronegative arthritis in the psoriatic patients (1, 8–10). Time interval for establishing the diagnosis depends on the initial PsA manifestations. For our patients, it was about 4 years. This time interval for making the diagnosis was too long. We should have tried to establish the diagnosis in an early phase of the disease to enable the appropriate therapy and the quicker remission (11, 12). According to the literature, about 40.0% of patients have a positive family history.
among close relatives with regard to psoriasis or PsA (13). It covered 15.0% of our patients. Several environmental factors are incriminated in the pathogenesis of PsA, including bacterial and viral infections and trauma, however, a specific pathogen has not yet been identified (14). In our group, the presence of environmental factors was found in about 20.0% of the patients.

PsA occurs in 10% of the psoriatic patients, in our group in 9.3% of the cases (4). In the majority of our patients, psoriasis occurred at 35 years of age, and PsA at 42. In more than 70.0% of the patients, psoriasis preceded arthritis, which was in accordance with other authors’ findings (15, 16). Arthritis can precede skin disease in about 15% of patients (in 14.8% of our patients), and in these cases the diagnosis is more difficult to establish. In these cases, the presence of several clinical manifestations can suggest the presence of PsA, such as: arthritis of distal interphalangeal joints, asymmetric arthritis and the possible presence of nail lesions (onycholysis), or the hidden psoriatic plaque. Nail lesions such as spottiness, striation, onycholysis, the detachment of the nail plate from the bed could sometimes be the only predictive clinical pattern for the arthritis development. More than 70.0% of the patients with PsA have nail changes, but this percentage is lower in psoriatic patients (30.0 to 50.0%) (17). In our group, only 34.0% of the patients had nail changes, which might be a consequence of the lack of nail examination, or of unrecorded nail changes in medical files. In the patients with arthritis and nail changes, but without cutaneous lesions, there was a dilemma in differential diagnosis with regard to Reiter’s syndrome. Namely, we had 2 (1.1%) patients with Reiter’s syndrome and nail lesions with negative mycological findings (18). In such cases, a careful history, clinical presentation and all the available diagnostic procedures can help to establish the diagnosis. It is known that nail changes are associated with DIP joints arthritis (10). In about 50.0% of patients, arthritis affects DIP joints, so that it can be concluded that these two manifestations are most frequently simultaneous (16). Association of skin and joints changes, concerning their distribution and severity of inflammation, is a topic for further discussion, although it is accepted that all forms of psoriasis can be seen in patients with PsA. Most of authors think that the intensity of skin lesions is not in the correlation with the severity of arthritis (2, 16). In our group, a positive correlation between skin lesions and arthritis activity was recorded in 55.6% of the patients. Minimal skin changes were more frequent than the extensive ones. There were significantly more patients with a severe than with a mild form of arthritis. In patients with a serious form of arthritis, capillitium changes were significantly more frequent than in a mild form of the disease, which was also found by Elkayam et al. (15).

Regarding the frequency of manifestations in relation to classification patterns, the studies published from 1973 to 1993 presented the larger number of patients with asymmetric oligoarthritis. In the studies published from 1994 to 2004 more frequent appearance of the patients with symmetric polyarthritis was noted. In our group there were 55.0% patients with polyarthritis and 45.0% with oligoarthritis, which might be explained with the long observation period. Some patients with PsA had two or more clinical patterns of arthritis and some converted from one pattern to another (19). This was the case with some of our patients. Affected joints were painful and stiff, but in one half of them the morning stiffness lasted longer than 30 minutes. Stiffness was marked after having a long rest, and it relieved after a physical activity. Its characteristic is a milder painful tenderness in joints more than it is the case with other types of arthritis, e.g. rheumatoid arthritis, (20). Thus, the patients could develop deformities without the presence of intensive pain. In our patients, hand and foot phalangeal deformities were noted frequently. However, 70.0% of our patients had arthralgias, 37.7% the signs of enthesitis and 20.0% dactylitis, more often in a foot. In patients with dactylitis without psoriasis, establishing the diagnosis can be difficult, because dactylitis is a common feature of Reiter’s syndrome, too.

It is known that no specific laboratory findings could be obtained in patients with PsA. Level of fibrinogen, C-reactive protein and haptoglobin were proportional to the inflammation severity and the number of affected joints in our patients. Increased uric acid level was found in 8 of the patients, of whom the 3 had uric diathesis or uric arthritis coinciding with PsA. In PsA, hyperuricemia is associated with accelerated cutaneous cell metabolism but not with the extent of psoriatic changes (21). Serum IgM rheumatoid factor was found in over 10.0% of psoriatic patients and in over 15.0% of general population (2). It was positive in 4.3% of our patients, as well as in 5.0% of 360 PsA patients published by Mladenovic et al (22).

Radiologic changes in the early course of the disease suggest either very aggressive disease or arthritis of longer duration than reported by a patient. Gladman et al. (2) have observed radiological changes in the two-thirds of 220 patients on the first examination, while they were present in 53.7% of our patients. Changes were most frequently localized in the hands, feet, sacroiliac joints and spine. Enthesopathic changes were most often expressed in the heel bone, sometimes bilaterally, in the elbow, shoulder, pelvis and knee. Sacroiliac arthritis was found in 46.4% and psoriatic spondylitis in 19.5% of our patients. Mutilating changes in PsA were the late manifestations of the disease and we found them in 6.8% patients in hands, feet and shoulders. Radiologic degree of changes IV was observed in 12.0% of our patients considering all hospitalizations. On the basis of radiographic findings, we concluded that all joints could be involved in psoriatic arthritis.

Sceintigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints. Sцинтigraphy of the skeletal system was performed in 28 of the patients, and revealed the presence of pathological accumulation of radionuclides in all inflammed joints.
the patients in whom sacroiliitis was detected by radiography, proved scintigraphy, to be the more sensitive method, which had already been reported (23). In accordance with other authors, we concluded that scintigraphy should be used in case of suspected early phase sacroiliitis, because radiographic changes are the late ones. When considering peripheral arthritis, scintigraphy only confirmed clinical findings, and, for this reason, it was redundant and unnecessary.

The treatment of PsA patients is multidisciplinary, and requires a coordinated therapeutic approach of a dermatologist, rheumatologist, physiatrist and preferably an orthopedic surgeon. In our patients with a mild form of the disease topical therapy including keratolytic agents, corticosteroids and PUVA therapy was applied, while in those with arthritis, NSAIDs were used. In severe forms of skin disease, PUVA therapy, retinoids, cyclosporine and methotrexate were used, and DMARD were administered for arthritis. We noticed that from 1970 to 1989, most of our patients with the severe clinical presentation were administered ACTH or corticosteroids. Intraarticular depot steroids were also given. Later on, findings that this therapy could aggravate skin changes, DMARDs were more frequently administered, first of all methotrexate, gold, antimalarials, sulfasalazine and somewhat less frequently d-penicillamine, azathioprine, cyclosporine and levamisol, as being in accordance with other authors reports (24, 25). Complications during the DMARD therapy were rare, and the reasons for the withdrawal of some of them are shown in Table 3. The most frequently used medication from this group was methotrexate, because it had been shown that it exerted favourable therapeutic effect equally in psoriasis and psoriatic arthritis (26–28). In patients with generalized psoriasis and arthritis, we started to administer it in 1983. In the following period, we chose more often methotrexate in cases of the inefficiency of the previous therapy or in patients requiring the administration of two DMARDs. As have been reported, the administration of methotrexate has led to the reduced use of gold in therapy (29). At our Clinic, gold has not been used since 1998. Radionuclide synovectomy was performed in 6.8% patients and surgery in 6.2%, while in Zanggera et al. study (30), surgery was performed in 7.0% of 440 PsA patients. Physical therapy was applied in all our patients.

**Conclusion**

Psoriatic arthritis developed in 9.3% of psoriatic patients. The time interval for establishing the diagnosis was long. Arthritis preceded skin disease in about 15% and psoriatic arthritis without psoriasis appeared in 1.8% of the patients, and in these cases the diagnosis was difficult to establish. In the patients with arthritis and nail changes and in the patients with dactylitis, but without skin psoriasis, there were dilemmas over different diagnosis with regard to Reiter’s syndrome. There are no specific laboratory findings in patients with PsA. All the sinovial joints can be affected by the psoriatic process. Scintigraphy should be only used in case of suspected early sacroiliitis. The treatment of PsA patients is multidisciplinary, and requires a teamwork of a dermatologist, rheumatologist, physiatrist, and preferably an orthopedic surgeon.

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A p s t r a k t


PSORIJSNI ARTRITIS: RETROSPEKTIVNA STUDIJA 162 BOLESNIKA

Cilj. Utvrditi prevalenciju psorijskog artritisa kod obolelih od psorijaze i retrospektivno analizirati rezultate ispitivanja i lečenja obolelih od psorijaznog artritisa u tridesetčetvorogodišnjem periodu. Metode. Obuhvaćena su 162 od 183 bolesnika sa psorijaznim artritismom, starosti 48 ± 15 godina. Ispunjavali su važeće dijagnostičke kriterije za psorijazu i psorijazni artritis. Rezultati. Od ukupno 1976 bolesnika sa psorijazom njih 183 (9,3%) imala su artritis. Vreme do postavljanja dijagnoze iznosilo je 4 godine. Pozitivnu porodicu anamnese imalo je 15%. Artritis se najčešće ispolio u 42. godini kod 70,4%; 2 meseca do 59 godina postojali su ispoljavanja znakova psorijaze. Psorijazni artritis bez psorijaze ispolio se kod 1,8% bolesnika. Teži oblik imalo je 64,2% bolesnika, najčešće sa psorijazom kapiličijuma (χ²=3,2; p<0,05). Promene na noktima je imalo 35,0%. Zaihvaćenost distalnih infrafalangnih zglobova bila je 63,6%, aksijalnog skeleta 36,4%, oligoartritisa je imalo 45,0%, poliartritisa 55,0%, multilaštanu formu 6,8% bolesnika. Brzina sedimentacije eritrocita bila je povećana kod 61,7%. Imunoglobulin M (IgM) reumatooidni faktor imalo je 4,3% bolesnika. Kod 28 bolesnika HLA antigeni bili su: A2 32,0%, A3 18,0%, A1 i A9 po 14,0%, A28 i A29 po 3,5%, B8 i B16 po 14,0%, B5 i B12 po 11,0%, B13, B15, B18, B27 i B35 po 7,0%. Radiološkim pregledom najčešće su nađene promene na zglobovima šaka i stopala, rede na la-
ktovima i kolenima, a retko na kukovima i ramenima. Sakroiliitis je imalo 46,4%. Psorijaza je kod svih bolesnika lećena kortikosteroidnim i salicilnim mastima, ultravioletnim zracima (PUVA) kod 5,6%, a retinoidima kod 4,3% bolesnika. Artritis je lećen nesteroidnim antiinflamatoricima, kortikosteroidima 41,3%, a kod 59,9% bolest-modifikujućim lekovima, najčešće metotreksatom. Radijacjska sinovijektomija sprovedena je kod 6,8%, hirurška kod 6,2% i kod svih fizikalna terapija. 


**Kljучне речи:** psorijaza; artritis; masti, lekovite; ultravioletni zraci; antireumatici; antiinflamatorici, nesteroidni; ortopedskе procedure.

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