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SIGNIFICANCE OF X-RAY EXAMINATION IN THE DIAGNOSIS OF REACTIVE ARTHRITIS ACCORDING TO A RETROSPECTIVE ANALYSIS

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Abstract: *The study performed a retrospective analysis of knee radiographs from a total of 278 patients with reactive arthritis (ReA). In this study, the mean age of patients examined by radiological parameters was 37.1 ± 10.3 years, while the mean duration of the disease was 3.5 ± 1.6 years. It is noted that arthritis syndrome has a number of specific manifestations depending on its trigger factors, that is, clinical forms.*

Keywords: *reactive arthritis, examination, retrospective analysis, radiological signs*

In many countries worldwide, the incidence of morbidity and disability due to reactive arthritis (ReA) is increasing, along with chronic inflammatory diseases of the joints. A number of studies have shown that the incidence of ReA has been doubled over the last thirty years, with a prevalence rate of 0.3% - 0.65% among people in different countries. In developed countries ReA has been reported to occur in an average of 35-year-old patients, with a 1/3 increase in the proportion of women among patients. ReA is one of the most complex problems of rheumatology, and despite plenty studies are made, the pathogenesis of this disease has not yet been fully estimated.

The joint syndrome in this disease is dominant. Its severity determines the course and severity of the disease. The options for destruction of various joints: transient arthralgia, synovitis, erosive arthritis, osteoarthritis, ankylosis of the joints. Arthritis can occur acutely, accompanied by severe pain and General symptoms (fever, chills, weakness). There are subacute variants of joint syndrome with moderate exudative changes in the joints. The joints of the lower extremities (knee, ankle), and the joints of the feet are more often affected. There are no "exception" joints for Reiter's disease, therefore, any joint can be involved in the pathological process.

Objective: To evaluate structural changes in patients with ReA using radiological examination.

Materials and methods: The retrospective analysis of knee joint radiographs of 278 patients with ReA was performed. The average age of the patients examined by radiograph was 37.1 ± 10.3 years, with the disease lasting an average for 3.5 ± 1.6 years. 190 patients have had an urogenital form of ReA and 88- a postenterocolytic form respectively.

Results and discussions:

Epiphyseal osteoporosis was observed on the X-ray analysis of the knee joint 97.1% of cases. It is shown in figure 1, osteo-patching, i.e., erosive arthritis, was detected in 37.4% of cases, and cystic changes were seen in 21.9% of patients. In turn, secondary osteoarthritis

was detected in 1/3 of patients with ReA. Osteosclerosis was observed in 39.9% of cases and osteophytosis in 24.1% of patients. In addition, one of the hallmarks of ReA was periostitis, which occurred in 92.8% of patients. Analysis of the distribution of these detected radiological changes according to the form of the disease showed that there were differences between them.

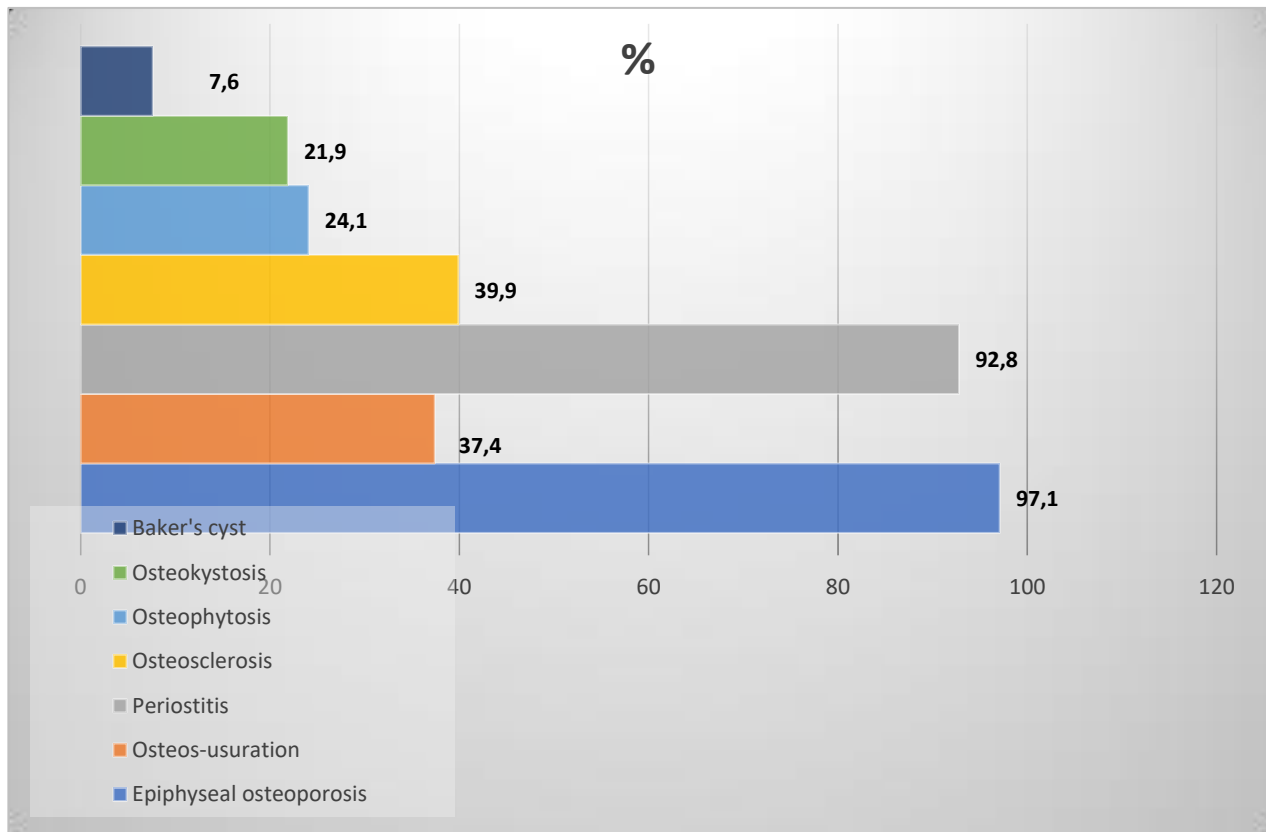


Figure 1. X-ray signs of the knee joint in patients with reactive arthritis

According to the results, no difference was observed between the two groups in the degree of periostitis encounter, which is one of the radiological signs shown in Figure 2. In turn, erosive arthritis in the urogenital form was more common in patients with a postenterocolitis form of ReA (47.9%, $r < 0.05$). In addition, secondary osteoarthritis (OA) (49.5%, $r < 0.05$) was observed in almost half of patients with urogenital form. In addition, osteocystosis was also more pronounced in the urogenital form than in the postenterocolitis form, accounting for 29.5% ($r < 0.05$).

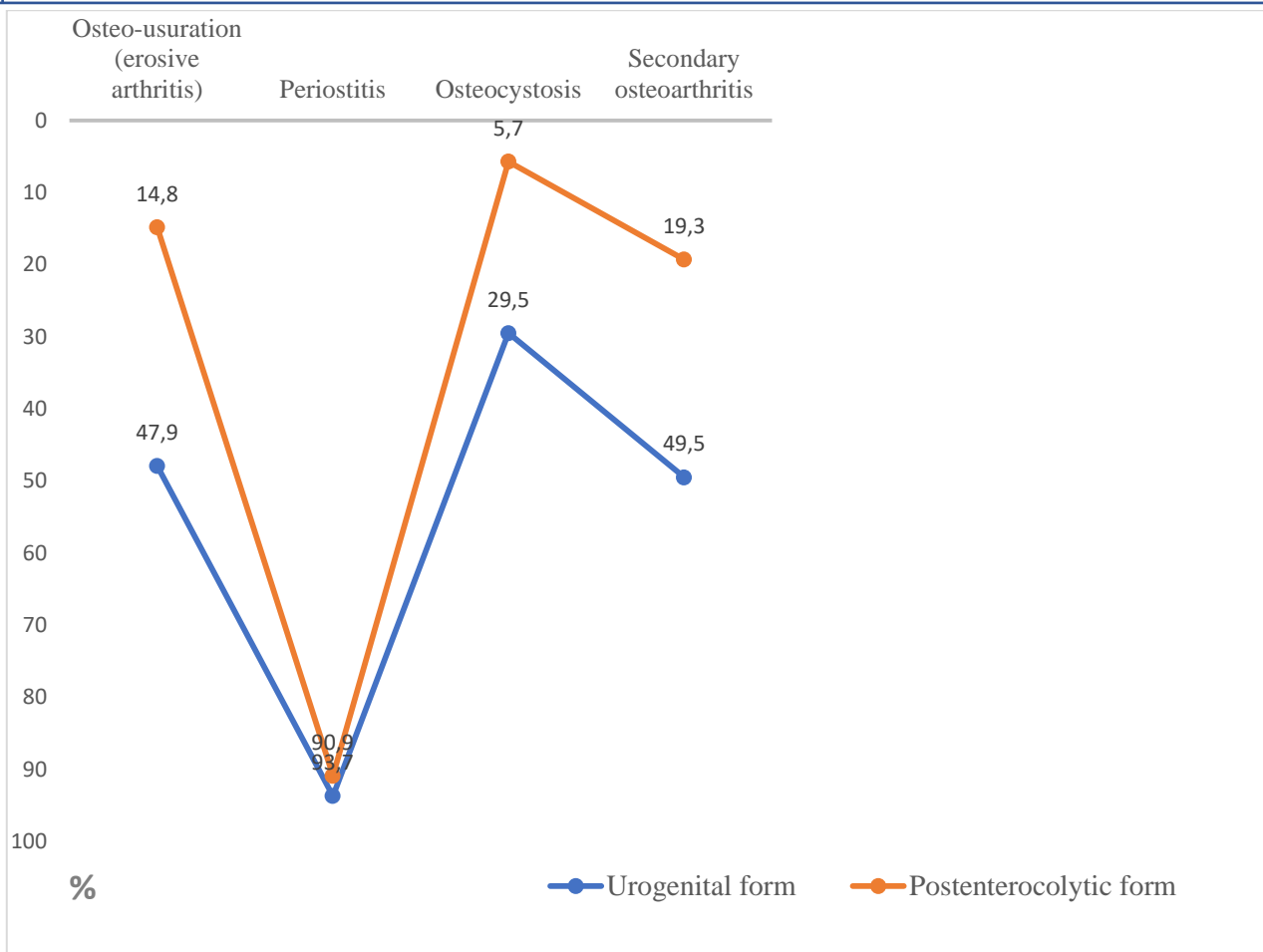


Figure 2. X-ray signs of the knee joint in patients with reactive arthritis

Hence, the urogenital form of the disease is characterized by the development of secondary OA, characterized by more pronounced radiological changes. At the same time, the analysis of the relationship of the above-mentioned radiological signs with the duration of the noted disease also showed specific differences.

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