ECRONICON OPEN ACCESS

EC PAEDIATRICS
Guest Editorial

Clinical and Anamnestic Features of the Onset of Reactive Arthritis and Juvenile Idiopathic Arthritis (Ratios for Preliminary Diagnosis)

Ostrovsky IM*, Pshenichnaya EV and Gudenova AS

Federal State Budgetary Educational Institution of Higher Education "Donetsk State Medical University Named After M. Gorky" of the Ministry of Health of the Russian Federation, Russia

***Corresponding Author:** Ostrovsky IM, Federal State Budgetary Educational Institution of Higher Education "Donetsk State Medical University Named After M. Gorky" of the Ministry of Health of the Russian Federation, Russia.

Received: December 22, 2025; **Published:** January 02, 2026

Abstract

Objective: Objective is to study the clinical and anamnestic features of the onset of reactive arthritis and juvenile idiopathic arthritis.

Materials and Methods: The medical records of 77 children with reactive arthritis (ReA) and 36 patients admitted to the Republican Children's Clinical Hospital with a diagnosis of ReA, which was subsequently reclassified as juvenile idiopathic arthritis (JIA), were reviewed.

Parameters analyzed included the duration of joint syndrome, the presence of morning stiffness, involvement of more than 5 joints, involvement of the interphalangeal joints, and complaints of spinal pain.

Results: A disease duration of more than a year is more typical for JIA, but does not exclude ReA, and a disease duration of more than 6 weeks is not a distinguishing feature.

Morning stiffness, enlarged interphalangeal joints, and spinal pain are significantly more common in JIA, but can also occur in ReA.

The significance of combinations of symptoms was then analyzed.

Conclusion: Symptoms such as long-term joint damage, morning stiffness, enlarged interphalangeal joints, and complaints of spinal pain are characteristic of JIA, but are also found in ReA.

The combination of two symptoms increases the likelihood of JIA, while spinal pain combined with other symptoms or the combination of three or four positions leaves no doubt about the diagnosis of JIA.

Keywords: *Juvenile Idiopathic Arthritis; Reactive Arthritis; Preliminary Diagnosis*

Introduction

One of the pressing issues in modern pediatrics is the diagnosis and treatment of inflammatory joint diseases. The most common rheumatic diseases of childhood are reactive arthritis (ReA) and juvenile idiopathic arthritis (JIA).

Until recently, ReA was defined as any inflammatory joint disease associated with a current or past infection. However, reactive arthritis is now defined as an arthropathy that develops in response to an intestinal or urogenital infection. By the time arthritis develops, clinical signs of infection typically resolve. Since the clinical presentation of JIA and ReA is largely similar, establishing a preliminary diagnosis can

be challenging at the initial stage. Early assessment of a symptom complex allows for narrowing the diagnostic search, informed selection of additional testing strategies, and timely initiation of pathogenetic therapy appropriate to the suspected diagnosis. In the available English-language literature these issues are not addressed.

Objective of the Study

Objective is to study the clinical and anamnestic features of ReA and JIA and to identify a group of symptoms that, already at the first visit, will allow one to suggest the correct diagnosis and determine adequate tactics for further patient management.

Materials and Methods

There was reviewed the medical records of 77 children with ReA and 36 patients admitted to the Republican Children's Clinical Hospital with a diagnosis of ReA, which was later reclassified as JIA in accordance with the clinical guidelines of the Russian Association of Pediatric Rheumatologists for the diagnosis and treatment of children with ReA and juvenile arthritis [1,2].

We analyzed parameters such as the duration of joint syndrome, the presence of morning stiffness, involvement of more than 5 joints, involvement of the interphalangeal joints, and complaints of spinal pain.

The significance of differences in the compared parameters was determined using the Student's t-test and the online calculator on the Medical Statistics website.

Results

All patients in the JIA group had a disease duration of more than a year, compared to 15 (19.5%) in the ReA group. A disease duration of more than 6 weeks is considered diagnostic of JIA. In the ReA group, there were 44 such patients (57.1%). Thus, a disease duration of more than a year is more typical for JIA but does not exclude ReA, and a disease duration of more than 6 weeks is not a distinguishing feature.

Morning stiffness was noted in 5 children with ReA (6.5 ± 2.81%) and 15 children with JIA (41.7 ± 8.22, $p < 0.001$).

More than 5 joints were affected in both 4 children with JIA (11.1%) and 3 children with ReA (3.9%)-the difference is insignificant.

Enlargement of the interphalangeal joints was noted in 8 patients with juvenile idiopathic arthritis (22.2 ± 6.93%) and in 3 patients with reactive arthritis (3.9 ± 2.21%, $p < 0.02$).

Spinal pain was noted in 7 patients with JIA (19.4 ± 6.60%) and in one patient with reactive arthritis (1.3 ± 1.29%, $p < 0.01$).

As follows from these data, there is no single clinical symptom or fact that would initially be characteristic of only one disease and unambiguously indicate one or the other diagnosis. The analyzed characteristics are more significant for JIA, but are also found in reactive arthritis.

Next, the significance of combinations of features was analyzed.

In reactive arthritis, a combination of two features was noted in three patients, while in JIA, a combination of two features was found in 14 patients. In comparison, this is, respectively, 3.9 ± 2.21% and 38.9 ± 8.12%, ($p < 0.001$).

However, a combination of spinal pain and other symptoms has not been observed in reactive arthritis. Reactive arthritis (ReA) does not exhibit combinations of three or more symptoms, whereas juvenile idiopathic arthritis (JIA) exhibits five and two such combinations, respectively.

Conclusion

Symptoms such as long-term joint damage, morning stiffness, enlarged interphalangeal joints, and complaints of spinal pain are characteristic of juvenile idiopathic arthritis (JIA), but are also found in reactive arthritis (RIA).

The combination of two symptoms increases the likelihood of JIA, while spinal pain combined with other symptoms, or a combination of three or four positions, leaves no doubt about the diagnosis of JIA.

Bibliography

1. Reactive arthritis. Clinical guidelines of the Russian Federation, MedElement online publication.
2. Juvenile arthritis. Clinical guidelines of the Russian Federation, Online publication "MedElement".

Volume 15 Issue 1 January 2026