

STRUCTURE OF JUVENILE IDIOPATHIC ARTHRITIS ACCORDING TO THE REGISTRY OF CHILDREN WITH RHEUMATIC DISEASES IN ANDIJAN

Olimjonov Mirzokhid Yusupzhanovich

Andijan State Medical Institute Andijan, Uzbekistan

The article analyzes the structure of juvenile idiopathic arthritis (JIA), as well as the structure of antirheumatic therapy. The study included 170 patients with JIA living in Andijan, aged from 1 to 17 years, of which 108 were female (63.8%), 62 (36.2%) were male. The problem of studying JIA is one of the most pressing in pediatrics. For the first time, a register of children suffering from rheumatic diseases was created in Andijan. Work remains to be done to identify patients with the onset of JIA, as well as patients who are not registered with a pediatric rheumatologist, with the aim of registering them at the dispensary and including them in the register.

Key words: *rheumatic diseases in children, juvenile arthritis, basic antirheumatic therapy.*

СТРУКТУРА ЮВЕНИЛЬНОГО ИДИОПАТИЧЕСКОГО АРТРИТА ПО ДАННЫМ РЕГИСТРА ДЕТЕЙ С РЕВМАТИЧЕСКИМИ ЗАБОЛЕВАНИЯМИ В АНДИЖАНЕ

Олимжонов Мирзохид Юсупжанович

Андижанский государственный медицинский институт

Андижан, Узбекистан

В статью проведена анализ структуры ювенильного идиопатического артрита (ЮИА), а также структуры противоревматической терапии. В исследование включено 170 пациента с ЮИА, проживающих в г. Андижане, в возрасте от 1 до 17 лет, из них 108 – женского пола (63,8%), 62 (36,2%) – мужского. Проблема изучения ЮИА является одной из актуальных в педиатрии. Впервые создан регистр детей, страдающих ревматическими заболеваниями в г. Андижане. Предстоит работа по выявлению пациентов с дебютом ЮИА, а также пациентов, не состоящих на учете у детского ревматолога, с целью постановки на диспансерный учет и включения в регистр.

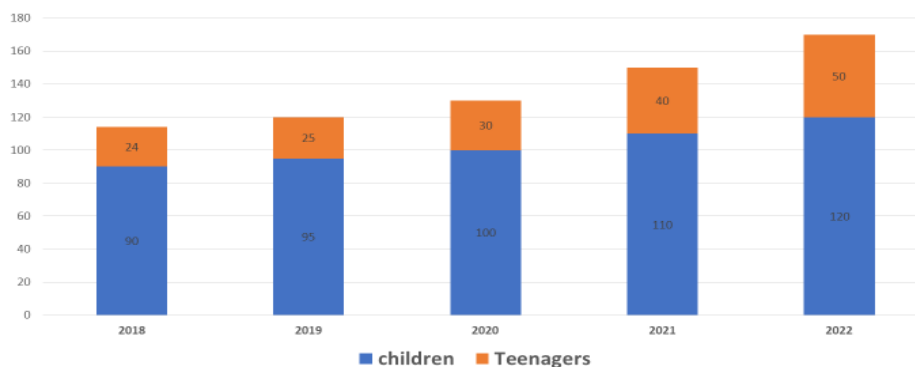
Ключевые слова: *ревматические заболевания у детей, ювенильный артрит, базисная противоревматическая терапия.*

INTRODUCTION

In recent decades, there has been a trend towards an increase in the number of systemic diseases, including juvenile idiopathic arthritis (JIA). According to the medical statistics department of the Ministry of Health of Uzbekistan for 2022, the prevalence of rheumatoid arthritis in children averaged 45.8 per 100 thousand

children, and in adolescents - 121.5. The primary incidence of JIA in children was 11.4 cases per 100 thousand children under the age of 17 years, the prevalence was 79.7 cases per 100 thousand [1, 2]. Available literature data do not allow us to accurately trace the dynamics of the incidence of JIA in Uzbekistan over a long period of time.

According to the Bureau of Medical Statistics, as of 2022, 170 patients suffering from JIA were registered in Andijan (Fig. 1).



General incidence of JIA in Andijan

From 2018 to 2022, there is a trend toward an increase in the number of patients suffering from JIA; this increase is likely due to the beginning of intensive work on the diagnosis and identification of patients with rheumatic diseases by the pediatric rheumatology service in Andijan.

The prevalence of JIA in Andijan in 2022 was 52.2 per 100 thousand children (0–14 years) and 99.8 per 100 thousand adolescents (15–17 years). The tasks of the register include: conducting epidemiological studies on the structure of rheumatic diseases in children, analyzing therapy, monitoring the safety of therapy, predicting the increase in the need for basic anti-inflammatory drugs and calculating requests for therapy [5,7].

For 2022, it contains information about more than 3 thousand children with JIA from 14 regions of Uzbekistan. The register is open for wide use; its objectives are to identify the need for expensive drugs, optimize the provision of targeted specialized care and create a waiting list for children in need of joint replacement [3,7,8]. In 2022 The results of the first studies conducted on the basis of the regional register of patients with JIA were obtained. Thus, it was found that in recent years there has been significant progress in the management of patients with systemic JIA, but the proportion of patients receiving glucocorticosteroids, non-steroidal anti-inflammatory drugs (NSAIDs) and antibiotics remains high [2,4,9,10].

The problem of treatment of rheumatic diseases in children is currently attracting maximum interest from pediatricians and rheumatologists. A wide selection of drugs, both basic and genetically engineered, allows us to individualize the approach to treatment for each child [1]. A concept has been created that allows us to determine

the so-called patient portrait, which allows us to maximize the therapeutic effect of the drug while minimizing the risk of side effects [5,6]. **Purpose of the study:** to analyze the structure of JIA according to the register of children with rheumatic diseases in Andijan.

Material and methods. The study included 752 patients living in Andijan, aged from 1 to 17 years, of which 480 were female (63.8%) and 272 (36.2%) were male. All patient data were entered into the unified Moscow register of children with rheumatic diseases. We analyzed the following indicators: gender and age characteristics, the general structure of JIA in differentiation with various variants (systemic, polyarticular seropositive and seronegative, oligoarticular, psoriatic, enthesitis-associated, undifferentiated); time intervals from the onset of the disease to diagnosis, prescription of basic and structure of basic antirheumatic therapy (methotrexate, cyclosporine A, colchicine, sulfasalazine, leflunomide, azathioprine, hydroxychloroquine). To describe quantitative indicators, the mean and standard deviation were used in the format $M \pm S$. The level of statistical significance was fixed at the error probability level of 0.05. Statistical data processing was performed using application packages Statistica 10 and SAS JMP.

Research results. The structure of various variants of JIA, basic antirheumatic therapy.

In total, data from the Moscow registry on 170 patients suffering from JA were analyzed, of which 108 were female (63.8%) and 62 (36.2%) were male. Not all patients in this study had complete data, so the number of patients may vary depending on the analysis performed.

Due to the small number of patients with oligoarticular advanced variant of JIA, this cohort of patients was combined with patients with persistent oligoarticular variant.

Table 1.

Structure of juvenile idiopathic arthritis

Diagnosis by ILAR, variant JIA	Quantity	Share (%)
Polyarticular seronegative	60	35,0
Oligoarticular persistent	58	34,1
System	20	11,8
Undifferentiated	18	10,9
Entizitny	6	3,4
Oligoarticular widespread	4	2,0
Psoriatic	3	1,6
Polyarticular seropositive	1	1,2
Total patients	170	100

As can be seen from Table 1, the structure of JIA is dominated by polyarticular seronegative (37.6%) and oligoarticular (35.7%) variants. The predominance of the polyarticular variant indicates that, apparently, not all patients with the oligoarticular variant of JIA are currently identified or are not observed by specialists, because,

according to the literature, the oligoarticular variant should predominate (up to 50%) in the structure of JIA [2, 8].

Descriptive statistics for all measured indicators are shown in Table 1. Since not all indicators were obtained for all patients, the first column of the table indicates the number of people for whom this indicator was obtained.

On average, the interval between the onset of the disease and diagnosis is 9.2 months, which exceeds the optimal time for diagnosis. On average 3.5 months. lasts from the moment of diagnosis to the prescription of a basic anti-inflammatory drug. Thus, the average interval from the onset of the disease to the start of antirheumatic therapy is 12.5 months, the duration of this period reduces the effectiveness of therapy.

As is known, the form and variant of the disease depend on the gender and age of the child; there is evidence of a more aggressive course of JIA in girls. At the same time, it is known that the enthesitis variant develops much more often in boys, and with the systemic form, the number of female and male patients is approximately equal [18, 19]. We analyzed the relationship between the gender of children and the variant of the disease and some indicators of disease activity between male and female patients. A total of 170 children were studied, of which 108 were female (63.8%) and 62 (36.2%) were male. To compare the two selected groups on quantitative indicators, the Mann-Whitney test was used, and for comparison on qualitative indicators, the Pearson chi-square test was used. The average age of female patients was 10.6 ± 4.5 years, and male patients – 11.1 ± 4.2 years.

Conclusions. 1. In total, according to the Andijan city register of children with rheumatic diseases, 170 patients from 1 to 17 years old are observed with a diagnosis of JIA, of which 63.8% are female and 36.2% are male. Among them, 37.6% suffer from the polyarticular seronegative variant of JIA, 35.7% from the oligoarticular variant of JIA, 11% from the systemic form of JIA, and 15.7% from other forms of JIA.

2. The average age of patients is 10.8 years, the average age of onset of the disease is 68.5 months. (5 years 7 months). The interval between the onset of the disease and diagnosis is on average 9.2 months, the interval from the onset of the disease to the start of antirheumatic therapy is 12.5 months.

3. In male patients, the age of onset of the disease is significantly higher. In female patients it is 63.2 ± 47.4 months, in male patients – 78.8 ± 45.6 month sale patients was 10.6 ± 4.5 years, and male patients – 11.1 ± 4.2 years.

BIBLIOGRAPHY:

1.Akhmedova N.R., Ibragimov A.A., Sayidova M.Kh. Frequency of occurrence of clinical forms of juvenile arthritis in children depending on age/ Russian Bulletin of Perinatology and Pediatrics // 2021; 66:(4)

2. Baranov A.A., Alekseeva E.I. [Electronic resource] Access mode: <http://buduzdorov.org/assets/files/documents/Detstvo-bez-artrita.pdf> // 2016.
3. Alekseeva E.I. and others. Features of drug therapy for children with systemic juvenile idiopathic arthritis: results of analysis of the All-Russian register of the Union of Pediatricians of Russia // Questions of modern pediatrics. 2016. No. 15 (1). pp. 59–67
4. Kozhevnikov A.N., Pozdeeva N.A., Konev M.A. et al. Juvenile arthritis: features of the clinical and instrumental picture and differential diagnosis // Attending physician. 2016. No. 4. pp. 66–73
5. Malevsky V.A. Territorial register of patients with juvenile arthritis // Scientific and practical rheumatology. 2005. No. 4. P. 95–97
6. Malevsky B.A. Prevalence and structure of juvenile idiopathic arthritis among children in the Republic of Bashkortostan // Scientific and practical rheumatology. 2006. No. 1. P. 56–60
7. Sazonova E.V. The first experience of maintaining a biological register for children in the Saratov region // Bulletin of medical Internet conferences. 2012. No. 2 (2). P. 120
8. Sevostyanov V.K., Zholobova E.S. Genetic engineering biological therapy in children with juvenile idiopathic arthritis and other rheumatic diseases in Moscow // Pediatrics. Journal named after G.N. Speransky. 2016. No. 95(3). pp. 51–55
9. Sevostyanov V.K., Zholobova E.S. Uveitis associated with juvenile idiopathic arthritis, according to the register of children undergoing genetic engineering biological therapy in Andijan // RMZh. 2017. No. 12. P. 924–928
10. Shibaev G.A. and others. Optimization of medical care for children with rheumatic diseases in the era of genetic engineering biological therapy (on the example of the Republic of Bashkortostan) // Issues of modern pediatrics. 2013. No. 12(6). pp. 85–89