



# **CLINICAL COURSE OF THE PREVALENCE OF DENTAL CARIES AND THE STATE OF PERIODONTAL TISSUE IN CHILDREN WITH RHEUMATISM**

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<b>Received:</b> February 11 <sup>th</sup> 2023 <b>Accepted:</b> March 11 <sup>th</sup> 2023 <b>Published:</b> April 14 <sup>th</sup> 2023	Dental health is an important problem of childhood in all countries of the world. Periodontal diseases and dental caries are accompanied by complex morphofunctional changes in tissues. Therefore, early diagnosis of periodontal diseases, enamel demineralization and timely treatment, taking into account the age-related features of the periodontal structure in children, are of great importance. Rheumatism in children is an acute disease of an infectious-allergic nature. Symptoms of childhood rheumatism are most often detected in children aged 6 to 14 years.

**Keywords:** Dentistry, Rheumatism, Periodontium, Caries.

Many authors in the early stages of research noted the high prevalence of carious lesions of the teeth, the frequent asymptomatic course of caries and its complications, the presence of 2-3 carious cavities in one tooth [Grinin V.M., Skvortsova A.A., 2011; Kurbanov O.R., Abakarov S.I., Grinin V.M., 2010]. Kozlitina I.Yu. (2011) When assessing the hygienic state of the oral cavity in children with juvenile rheumatoid arthritis, it was found that 15% have satisfactory hygiene, 40% have poor, and 45% have very poor. Such a low level of hygiene may be associated with a long stay in the hospital of children and lack of control, as well as with a severe general condition (fever, weakness, fatigue), poor opening of the oral cavity, arthritis of the temporomandibular joint, severe soreness of the mucosa in stomatitis, gingivitis. With rheumatism, abundant soft plaque, mineralized dental deposits are revealed. Poor oral hygiene in children with rheumatism contributed to the presence of 53% of chronic catarrhal gingivitis. Damage to periodontal tissues is caused not only by poor hygiene, but also by the influence of the underlying disease, which triggers the autoimmune mechanism of inflammation in periodontal tissues. Rheumatism is most common in children, characterized by a severe chronic course, which is accompanied by a violation of the development of the skeletal system, as well as the growth and development of children. Today, the issue of effective treatment and prevention of periodontal disease in children with severe rheumatic diseases is becoming increasingly relevant.

**PURPOSE OF THE STUDY:** To study the clinical course of the prevalence and intensity of dental caries in children with rheumatism. To assess the hygienic status and condition of periodontal tissues in children with rheumatism.

**MATERIALS AND METHODS OF RESEARCH:** 42 children aged 6-14 years old patients, patients with rheumatism were examined.

To determine the state of the hard tissues of the teeth of focal demineralization of the enamel, the examination was carried out using a set of dental instruments. When selecting, persons with areas of focal demineralization were excluded. It was detected using 2% methylene blue.

To assess the state of periodontal tissues in our work, we used the well-known periodontal index (PMA) modified by Parma (1960). The condition of the gums was assessed for each tooth after staining with the Pisarev-Schiller solution. Pre-isolate with cotton rolls, dry. The inflamed areas of the gums turn brown with glycogen, which is formed in the tissues as a result of the predominance of anaerobic metabolic processes. After conducting the study, we calculate the index using the evaluation criteria.

- 0 points - no inflammation;
- 1 point - inflammation of the interdental papilla;
- 2 points - inflammation of the marginal gums;
- 3 points - inflammation of the alveolar gums

The index evaluation criteria are as follows:

- Less than 30% - mild degree of gingivitis;
- 31-60% - moderate severity;
- 61% and above - severe degree.



A comprehensive dental study included: identifying complaints of sick children, taking an anamnesis, visual examination and index assessment of the KPU, GI, RMA, cytological research methods, professional and individual oral hygiene - the state of the oral organs. Patients were examined using a standard set of dental instruments under artificial lighting. During the examination of children, the generally accepted

sequence was followed: external examination, examination of the functions of the maxillofacial region, examination of the lips and oral mucosa, examination of the state of periodontal tissues, assessment of the location of teeth, dentition and occlusion, assessment of oral hygiene, examination of hard tissues of teeth, condition of the oral fluid

The prevalence of major dental diseases in sick children with rheumatism and the control group

Study Groups	Major dental diseases studied					
	dental caries		gingivitis		periodontitis	
	abs	%	abs	%	abs	%
1. Articular form of rheumatism, n=29	22	75,8	12	41,4	7	24,1
2. Systemic form of rheumatism, n=13	10	76,9	8	61,5	4	30,8
3. Control group of healthy children, n=18	8	44,4	2	11,1	-	-

Since in the distribution of children by age 3-6 and 14-16 years old groups were small, for further research we selected mainly children 7-10 and 11-14 years old, as the largest groups of 43 children, all in-depth studies were carried out mainly with children of this age.

**RESULTS AND ANALYSIS OF THE STUDY:** The conducted studies prove a higher prevalence and intensity of caries indicators in both studied groups with a systemic form of rheumatism.

The intensity of caries in children with rheumatism

The course of the disease	Children's age					
	7-10 years old			11-14 years old		
	Milk teeth kp	permanent teeth КПУ	Sum КПУ+кп	Milk teeth кп	permanent teeth КПУ	Sum КПУ+кп
1. Articular form of rheumatism	2,4±0,3*	2,45±0,07*	4,85±0,9*	2,37±0,2*	2,52±0,6*	4,89±0,4*
2. Systemic form of rheumatism	2,6±0,4*	2,59±0,2*	5,19±0,6*	2,48±,3*	2,73±0,1*	5,21±0,8*
3. Control group	1,45±0,2	0,69±0,1	2,14±0,5	0,75±0,03	1,2±0,4	1,95±0,3

Note: \* - the significance of differences in relation to the control group was noted, P<0.05.

It should be noted that caries in both milk and permanent teeth is characterized by an early and aggressive course, short-term development of caries complications, pulpitis and periodontitis, and almost asymptomatic against the background of powerful, anti-inflammatory therapy of the underlying disease.

The study of the prevalence of periodontal disease in children with rheumatic disease is shown in the table Prevalence of periodontal disease in sick children with rheumatism.

The course of the disease	Nosological forms of periodontal diseases			
	gingivitis	mild periodontitis	Periodontitis moderate-severe form	Control group
I. I. Articular form of rheumatism				
1. First age group (7-10 years old)	76,5±1,8**	-	-	-
2. Second age group (11-14 years old)	89,1±1,2**	1,65±0,71	1,42±0,03	9,4



II. II. Systemic form of rheumatism				
1. First age group (7-10 years old)	79,6±2,1**	2,37±0,52	2,46±0,83	
2. Second age group (11-14 years old)	92,3±1,7*	2,61±0,43	2,78±0,57	

Note: \* - the significance of differences in relation to the control group was noted, P<0.05.

As shown, the index of gingivitis RMA in the articular form of rheumatism in the 1st age group in the 2nd age group was more often diagnosed with gingivitis, all three severity levels: mild, moderate and severe gingivitis. (0) The intensity of gingivitis in children with the articular form of rheumatism in the 1st age group frequency the incidence of HCG exceeds the control by 4.3 times. This indicator in children with systemic rheumatism in the first age group exceeds the frequency of indicators of healthy children in the control group by 9.6 times, in the second - 11.5 times.

**CONCLUSIONS:** Studies have shown that all the examined sick children had above and subgingival dental deposits of various density and color from white to dark brown brown. It should be noted the high prevalence and intensity of dental deposits in children with rheumatism. There are separate reports of a high incidence of caries in rheumatism, multiple ODE.

It is necessary to take into account the fact that in such a poor and very poor state of oral hygiene, a high intensity of caries was established, as well as a low level of oral hygiene contributed to the development of an inflammatory process in the periodontal soft tissues in sick children. In these patients with rheumatic disease, various forms of gingivitis were found in almost 90% of sick children. It should be noted that with systemic FRA, the intensity of periodontal tissues is much higher. Of the nosological forms of gingivitis, catarrhal chronic gingivitis was established in most cases in both forms of the disease with articular, respectively, 65.7% and 78.2%, with systemic 72.3% and 86.4%.

**BIBLIOGRAPHY.**

1. Grinin V.M., Skvortsova A.A. Features of the development of dental caries and its complications in patients with rheumatoid arthritis// Russian Dental Journal. - 2011. - No. 2, - C-17-19
2. Avakova D.R., Mitronin A.V., Toroptsova N.V., Yerkanyan I.M. Dental caries in patients with rheumatoid arthritis: the current state of the problem // Bulletin of the National Medical and Surgical Center. N.I. Pirogov. 2018. No. 1. - p.143-149

3. Atezhanov D.O. Dental level of health of children with somatic pathology//Scientific research in the Kyrgyz Republic. - 2014. - No. 3. - S. 4-9.
4. Atezhanov D.O., Supiev T.K., Bakiev B.A. The relationship of somatic pathology and dental diseases in children, preventive measures and treatment // Bulletin of science and practice. - 2019. - V. 5. No. 8. - S. 56-65.
5. Bezrukov S.G., Galkina O.P. The prevalence and intensity of dental caries depending on the functional properties of the oral fluid in patients with juvenile rheumatoid arthritis // Modern Dentistry. 2014. No. 2 (59). -p.67-68
6. Khamraeva D.Sh., &Kazakova N.N. Bolalard caries prophylaxis sining zamonaviy usullari / / Bulletin of the doctor. Samarkand. - 2021. - No. 2. - S. 104-108.
7. Kazakova N.N., Sobirov A.A. Changes in saliva in children with comorbidities// Journal For Innovative Development in Pharmaceutical and Technical Science. – 2021. - № 4(3). – P. 28-31.
8. Kazakova N.N. The Chronic Catarrhal Gingivitis Diagnosis Specifics in Patients with Rheumatism// JournalNX. -2020. - №11(6). – P. 396-400
9. GS.Amrulloevich, IG.Elmuradovich, &KN.Nodirovna. INTERDISCIPLINARY APPROACH TO THE DIAGNOSTICS OF PATIENTS WITH HIGH-LOWER JOINT DISEASES// World bulletin of public health, Volume 3,2021. – P. – 63-70. ISSN (E): 2749-3644 Imp.pactor-7.8
10. NN.Kazakova. THE SPECIFICS OF THE DIAGNOSIS OF CHRONIC CATARRHAL GINGIVITIS IN PATIENTS WITH RHEUMATISM// Turkish Journal of Physiotherapy and Rehabilitation, 32(3). Web of science. 2021. – P. 22969-22978. ISSN 2651-4451/ e-ISSN 2651- 446X
11. RS SH, SG Sharopov, &NN Kazakova. IMPROVEMENT OF LOCAL PLASTICS OF SOFT TISSUES DURING EXPRESSION IMPLANTATION// STEP-2021. 3<sup>rd</sup> International Conference on Science Technology and



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Educational Practices. Portugal. – 2021.30 th  
May. – P. 57-58.

12. Zubaydullaeva M.A., Rakhimberdiev R.A.  
Dental caries in young children: epidemiology,  
etiology, prevention, treatment//Achievements  
of science and education. – 2020.