



New Day in Medicine
Новый День в Медицине

NDM



TIBBIYOTDA YANGI KUN

Ilmiy referativ, marifiy-ma'naviy jurnal



AVICENNA-MED.UZ



ISSN 2181-712X.
EiSSN 2181-2187

12 (74) 2024

Сопредседатели редакционной коллегии:

**Ш. Ж. ТЕШАЕВ,
А. Ш. РЕВИШВИЛИ**

Ред. коллегия:

М.И. АБДУЛЛАЕВ
А.А. АБДУМАЖИДОВ
Р.Б. АБДУЛЛАЕВ
Л.М. АБДУЛЛАЕВА
А.Ш. АБДУМАЖИДОВ
М.А. АБДУЛЛАЕВА
Х.А. АБДУМАДЖИДОВ
Б.З. АБДУСАМАТОВ
М.М. АКБАРОВ
Х.А. АКИЛОВ
М.М. АЛИЕВ
С.Ж. АМИНОВ
Ш.Э. АМОНОВ
Ш.М. АХМЕДОВ
Ю.М. АХМЕДОВ
С.М. АХМЕДОВА
Т.А. АСКАРОВ
М.А. АРТИКОВА
Ж.Б. БЕКНАЗАРОВ (главный редактор)
Е.А. БЕРДИЕВ
Б.Т. БУЗРУКОВ
Р.К. ДАДАБАЕВА
М.Н. ДАМИНОВА
К.А. ДЕХКОНОВ
Э.С. ДЖУМАБАЕВ
А.А. ДЖАЛИЛОВ
Н.Н. ЗОЛотова
А.Ш. ИНОЯТОВ
С. ИНДАМИНОВ
А.И. ИСКАНДАРОВ
А.С. ИЛЪЯСОВ
Э.Э. КОБИЛОВ
А.М. МАННАНОВ
Д.М. МУСАЕВА
Т.С. МУСАЕВ
М.Р. МИРЗОЕВА
Ф.Г. НАЗИРОВ
Н.А. НУРАЛИЕВА
Ф.С. ОРИПОВ
Б.Т. РАХИМОВ
Х.А. РАСУЛОВ
Ш.И. РУЗИЕВ
С.А. РУЗИБОВ
С.А. ГАФФОРОВ
С.Т. ШАТМАНОВ (Кыргызстан)
Ж.Б. САТТАРОВ
Б.Б. САФОВ (отв. редактор)
И.А. САТИВАЛДИЕВА
Ш.Т. САЛИМОВ
Д.И. ТУКСАНОВА
М.М. ТАДЖИЕВ
А.Ж. ХАМРАЕВ
Д.А. ХАСАНОВА
А.М. ШАМСИЕВ
А.К. ШАДМАНОВ
Н.Ж. ЭРМАТОВ
Б.Б. ЕРГАШЕВ
Н.Ш. ЕРГАШЕВ
И.Р. ЮЛДАШЕВ
Д.Х. ЮЛДАШЕВА
А.С. ЮСУПОВ
Ш.Ш. ЯРИКУЛОВ
М.Ш. ХАКИМОВ
Д.О. ИВАНОВ (Россия)
К.А. ЕГЕЗАРЯН (Россия)
DONG JINCHENG (Китай)
КУЗАКОВ В.Е. (Россия)
Я. МЕЙЕРНИК (Словакия)
В.А. МИТИШ (Россия)
В.И. ПРИМАКОВ (Беларусь)
О.В. ПЕШИКОВ (Россия)
А.А. ПОТАПОВ (Россия)
А.А. ТЕПЛОВ (Россия)
Т.Ш. ШАРМАНОВ (Казахстан)
А.А. ЩЕГОЛОВ (Россия)
С.Н. ГУСЕЙНОВА (Азербайджан)
Prof. Dr. KURBANHAN MUSLUMOV (Azerbaijan)
Prof. Dr. DENIZ UYAK (Germany)

ТИББИЁТДА ЯНГИ КУН НОВЫЙ ДЕНЬ В МЕДИЦИНЕ NEW DAY IN MEDICINE

*Илмий-рефератив, маънавий-маърифий журнал
Научно-реферативный,
духовно-просветительский журнал*

УЧРЕДИТЕЛИ:

**БУХАРСКИЙ ГОСУДАРСТВЕННЫЙ
МЕДИЦИНСКИЙ ИНСТИТУТ
ООО «ТИББИЁТДА ЯНГИ КУН»**

Национальный медицинский
исследовательский центр хирургии имени
А.В. Вишневского является генеральным
научно-практическим
консультантом редакции

Журнал был включен в список журнальных
изданий, рецензируемых Высшей
Аттестационной Комиссией
Республики Узбекистан
(Протокол № 201/03 от 30.12.2013 г.)

РЕДАКЦИОННЫЙ СОВЕТ:

М.М. АБДУРАХМАНОВ (Бухара)
Г.Ж. ЖАРЫЛКАСЫНОВА (Бухара)
А.Ш. ИНОЯТОВ (Ташкент)
Г.А. ИХТИЁРОВА (Бухара)
Ш.И. КАРИМОВ (Ташкент)
У.К. КАЮМОВ (Тошкент)
Ш.И. НАВРУЗОВА (Бухара)
А.А. НОСИРОВ (Ташкент)
А.Р. ОБЛОКУЛОВ (Бухара)
Б.Т. ОДИЛОВА (Ташкент)
Ш.Т. УРАКОВ (Бухара)

12 (74)

2024

ноябрь

www.bsmi.uz

<https://newdaymedicine.com> E:

ndmuz@mail.ru

Тел: +99890 8061882

Received: 20.11.2024, Accepted: 03.12.2024, Published: 10.12.2024

UDC 616.314-002-08

COMPARATIVE EFFECTIVENESS OF TREATMENT OF INITIAL DENTAL CARIES IN CHILDREN

Hamroyeva Dilafruz Shukurovna <https://orcid.org/0000-0001-6242-6216>

Bukhara State Medical Institute named after Abu Ali ibn Sina, Uzbekistan, Bukhara, st. A. Navoi. 1 Tel: +998(65)223-00-50 e-mail: info@bsmi.uz

✓ Resume

In this work, 73 children aged 7 to 15 years with the presence of initial dental caries in the oral cavity were examined in order to assess the effectiveness of conservative therapy in children without the formation of a carious cavity. The studied children were divided into 3 groups by blind randomization. In the first group, remineralizing therapy with an drug was performed, enamel sealing liquid - deep fluoridation. In group 2, remineralizing therapy was performed with a drug containing silver diaminofluoride "Argenate diocomponent". In group 3, remineralizing therapy consisting of a combination of rinsing the oral cavity with an antiseptic 0.01% chlorhexidine followed by the application of ODE with this antiseptic for 1 min. in combination with deep fluoridation. The obtained results revealed that the combined use of antiseptic and deep fluoridation is significantly more effective in suspending the treatment of carious lesions, without cavity formation, respectively, compared only with deep fluoridation and a preparation containing silver diaminofluoride.

Key words: caries, focal enamel demineralization, enamel sealing fluid, remineralization.

БОЛАЛАРДА БОШЛАНҒИЧ ТИШ КАРИЕСИНИ ДАВОЛАШНИНГ ҚИЁСИЙ САМАРАДОРЛИГИ

Хамроева Дилафруз Шукуровна <https://orcid.org/0000-0001-6242-6216>

Абу али ибн Сино номидаги Бухоро давлат тиббиёт институти Ўзбекистон, Бухоро ш., А.Навоий кўчаси. 1 Тел: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ Резюме

Ушбу ишда кариоз бўшлиқ ҳосил бўлмаган болаларда консерватив терапиясини олиб бориш самарадорлигини баҳолаш мақсадида оғиз бўшлигида тишларнинг бошланғич кариеси мавжуд 7 ёшдан 15 ёшгача бўлган 73 нафар бола текширилди. Ўрганилаётган болалар тасодифий рандомизация усули билан 3 гуруҳга ажратилди. Биринчи гуруҳда препарат билан реминераллаштирувчи терапия, эмални герметизацияловчи ликвид - чуқур фторлаш қўлланди. 2-гуруҳда реминераллаштирувчи терапия «Аргенат диокомпонент» кумуш диаминофториди мавжуд препарат билан олиб борилди. 3-гуруҳда оғиз бўшлигини 0,01% хлоргексидин антисептиги билан чайиш, мазкур антисептик билан 1 дақиқа давомда аппликацияси ва чуқур фторлашни ўз ичига олувчи реминераллаштирувчи терапия олиб борилди. Олинган натижалардан маълум бўлдики, бўшлиқ ҳосил қилмаган кариес шикастланишларини даволашда антисептик ҳамда чуқур фторлашнинг уйғунликда қўлланиши фақат чуқур фторлаш ҳамда кумуш диаминофторид мавжуд препаратни қўллашдан кўра сезиларли даражада самарали.

Калит сўзлар: Кариес, эмалнинг ўчоқли деминераллашуви, эмални герметизацияловчи ликвид, реминерализация.

СРАВНИТЕЛЬНАЯ ЭФФЕКТИВНОСТЬ ЛЕЧЕНИЯ НАЧАЛЬНОГО КАРИЕСА ЗУБОВ У ДЕТЕЙ

Хамроева Дилафруз Шукуровна <https://orcid.org/0000-0001-6242-6216>

Бухарский государственный медицинский институт имени Абу Али ибн Сины, Узбекистан, г. Бухара, ул. А. Навои. 1 Тел: +998 (65) 223-00-50 e-mail: info@bsmi.uz

✓ **Резюме**

В данной работе обследовано 73 детей от 7 до 15 лет с наличием в полости рта начального кариеса зубов с целью оценки эффективности проведения консервативной терапии у детей, без образования кариозной полости. Исследуемые дети разделены на 3 группы методом слепой рандомизации. В первой группе проводили реминерализующую терапию препаратом, эмаль герметизирующий ликвид – глубокое фторирование. 2 – группе реминерализующая терапия проводилась препаратом содержащая диаминофторид серебра «Аргенат диокомпонент». 3 – группе реминерализующая терапия состоящая из сочетания полоскания полости рта антисептиком 0,01% хлоргексидина с последующей аппликацией данным антисептиком на 1 мин. в сочетании с глубоким фторированием.

Полученные результаты выявили, что сочетанное применение антисептика и глубокого фторирования значимо эффективнее в приостановке лечения кариозных поражений, без образования полости соответственно по сравнению только с глубоким фторированием и препаратом содержащим диаминофторид серебра.

Ключевые слова: кариес, очаговой деминерализации эмали, эмаль герметизирующий ликвид, реминерализация.

Relevance

Dental caries is a multifactorial infectious disease that can develop at any age – in early childhood, in adolescence and in adults, throughout life, leading to the demineralization of enamel with the formation of a carious cavity. According to VOZ, caries remains a significant problem in most developed countries of the world, affecting from 60 to 90% of children and the vast majority of the adult population [2,4,7,9].

Early diagnosis and prevention of the development of the carious process are still considered the main and not fully understood problems in modern dentistry. It is very important that the progression of the carious process can be stopped before the formation of a carious cavity. The most urgent and expedient is the detection of carious lesions in children at early stages in the treatment of which modern non-surgical methods (interceptive treatment) are used [1,3,5,8].

The main advantages of modern techniques are a boron drilling machine, as well as the possibility of removing lesions of the tooth tissue without affecting its healthy part. The treatment of carious lesions without drilling is based on various principles of exposure [1,6,8,9]. The application of the postulates of the modern concept of dental caries has made it possible to develop methods that not only help prevent the occurrence of the disease, but also allow to suspend carious lesions in the early stages of development without surgical intervention. The methods of treatment of dental caries in the early stages include minimal invasion, preventive, non-operative and interceptive treatment.

Conducting interceptive treatment in temporary and permanent cases in young children is indicated for a number of reasons. It is primarily aimed at the cause of the disease, allows you to save more hard tissues of the tooth compared to dissection, and most importantly - almost painlessly [1,2,3,7].

To reduce the incidence of dental caries in childhood, it is necessary to increase the effectiveness of conservative treatment of enamel caries, since this is the only nosological form of caries that lends itself effectively to conservative treatment and is one of the integral and urgent tasks in pediatric dentistry [2,4,5,8,9].

The purpose of the study: To evaluate the effectiveness of conservative treatment of early caries (ODE) without cavity formation in children.

Materials and methods

73 children aged 7 to 15 years were examined. The intensity of the carious process was assessed according to the VOZ - CPU index. Oral hygiene was assessed using an index developed by E.M. Kuzmina (2000) [2]. The criterion for inclusion in the study was the presence of initial caries, focal enamel demineralization (ODE) in the oral cavity in children.

The results of the study

Before the start of the therapeutic measures, all children underwent oral sanitation and the children were divided into 3 groups by blind randomization. In the first group – 23 children underwent remineralizing therapy with the drug Enamel sealing liquid (Humanhemie. Germany). In the second

group, 25 children were treated with a preparation containing silver diamine fluoride "Argenate one-component" ("Vladmiva". Russia). In the third group, 25 children underwent combined remineralizing therapy with rinsing and subsequent application of 0.01% p-r chlorhexidine for 1 minute before enamel remineralization, sealing liquid.

All methods of treatment of initial caries were carried out according to the methods and with the multiplicity of procedures specified by the manufacturing companies in the instructions for the use of materials. Evaluation of the results of the study was carried out after 3, 6 and 12 months in each age group of children.

Of antimicrobial agents in dentistry, solutions of chlorhexidine in various concentrations are more often used. This antiseptic has a pronounced bacteriostatic and bactericidal properties. Chlorhexidine acts on both gram-positive and gram-negative microorganisms, as well as fungi.

The effectiveness of remineralization was evaluated for initial carious lesions on smooth surfaces in comparison with those in group 1, 2, 3. For this purpose, an analysis of the dynamics of the state of initial carious lesions in the form of chalky spots on the smooth surfaces of incisors, canines and molars was carried out 3, 6 months and 1 year after the start of therapeutic and preventive measures.

In children of group 1, when using fluorolac, there is a decrease in the reduction of ODE by 0.37, in group 2 by 0.46 and in group 3 by 0.65. Also, other studied indicators of TER and CDOERR -test (clinical determination of enamel remineralization rate) in all 3 groups significantly improved after 3 months of follow-up compared with the initial values, which indicates the effectiveness of the remineralizing therapy (Table 1). After 6 months and 1 year after therapeutic and prophylactic procedures, the tendency to decrease in the studied indicators persists and remains significantly lower compared to the data before treatment.

In children of group 1, the remineralization of initial carious lesions was observed in $34.9 \pm 4.97\%$, in group 2 – in $45.7 \pm 5.79\%$, in group 3 – $54.5 \pm 6.17\%$ of teeth. The progression of ODE on smooth surfaces during rinsing and application with 0.01% chlorhexidine solution is 1.8 times more effective compared to the application of silver diamine fluoride and 1.4 times more effective compared to deep fluorination with enamel sealing liquid.

Table 1

Dynamics of development of ODE in children under the influence of various methods of remineralizing therapy

Groups	Studied indicators	Terms of observation			
		Initial data	After 1 month	After 6 month	After 1 year
№ 1	TER (1-3 points)	3,96±0,13	3,57±0,11***	3,43±0,11**	3,39±0,12***
	CDOERR (1-3 days)	3,00±0,13	2,57±0,11***	2,65±0,15	2,57±0,11
	ODE intensity	4,32±0,20	3,95±0,20	4,20±0,14	4,27±0,17
№ 2	TER (1-3 points)	3,88±0,12	3,44±0,10*	3,32±0,11**	3,32±0,10***
	CDOERR (1-3 days)	3,04±0,12	2,44±0,12**	2,40±0,12	2,36±0,10
	ODE intensity	4,26±0,24	3,80±0,21	3,60±0,08**	3,60±0,14***
№ 3	TER (1-3 points)	3,76±0,10	3,32±0,10*	3,20±0,10**	3,20±0,10**
	CDOERR (1-3 days)	3,08±0,15	2,32±0,10*	2,32±0,10*	2,32±0,11**
	ODE intensity	4,21±0,18	3,56±0,16**	3,51±0,10**	3,50±0,10**

Note: *-the reliability of differences in relation to the "Initial data" was noted (*-P<0.001; ** - P<0.01; *** - P<0.05).

Conclusions

Thus, the inclusion of rinsing and application of 0.01% chlorhexidine solution in the complex of therapeutic and prophylactic mineralizing therapy makes it possible to increase the effectiveness of remineralization of initial carious lesions in the form of ODE located on smooth surfaces of teeth by 27.5%.

Children with an acute course of the carious process, as evidenced by the presence of ODE, along with the elimination of common risk factors for the development of the carious process. The use of therapeutic and prophylactic remineralizing therapy with fluorolac preparations, deep fluoridation of enamel with sealing liquid leads to remineralization of a significant proportion of initial carious lesions, stabilization and reverse development of caries in the spot stage, while the effectiveness remains high both 3 and 6 months and 1 year after remineralizing therapy, which allows us to recommend these drugs for wide use in therapeutic and prophylactic remineralizing therapy of ODE in children.

It should be noted that the effect of remineralizing therapy is enhanced when they are used in combination with the antiseptic 0.01% chlorhexidine during all follow-up periods.

LIST OF REFERENCES:

1. Кузминская О.Ю., Рутковская П.В. //Стоматология детского возраста и профилактика. 2016;1:28-30.
2. Hamroyeva Dilafruz Shukurovna. General dental condition and characteristics of dental caries in children with heart defects //American Journal of Medicine and Medical Sciences. USA. - 2023;2(13):153-155.
3. Хамроева Дилафруз Шукуровна. Туғма юрак нуқсони билан касалланган болаларда оғиз суюқлигини клинко-лаборатор текшириш ва тиш кариеси профилактикасини такомиллаштириш //Тиббиётда янги кун. Илмий-рефератив, марифий-маънавий журнал. Бухоро. 2023;6(56):232-237.
4. Hamroeva Dilafruz Shukurovna. Prevalence indicators of caries and parodont soft tissue diseases in children with congenital heart defects //Eurasian Medical Research Periodical. Belgium. 2023;21:165-169. (Impact factor: 8.1)
5. Хамроева Д.Ш. Юрак нуқсони билан оғриган болаларда пародонт тўқималари ҳолатининг цитологик ўзгаришларини аниқлаш кўрсаткичлари //Доктор Ахборотномаси. Илмий-амалий журнал. Самарканд. 2023;2(110):105-110.
6. Хамроева Дилафруз Шукуровна. Юрак нуқсони билан касалланган болаларда асосий стоматологик касалликларнинг тарқалиш кўрсаткичларини баҳолаш //Журнал стоматологии и краниофациальных исследований. Самарканд. 2023;4(3):23-26.
7. Хамроева Дилафруз Шукуровна. Сравнительная эффективность лечения начального кариеса зубов у детей с врожденными пороками сердца //Научные тенденции в медицине. Ташкент. 2024;3:11-19. E-ISSN: 3030-3516
8. Hamroyeva Dilafruz Shukurovna. Improving the Diagnosis and Treatment of Tooth Enamel Demineralization in Children with Heart Defects //American Journal of Pediatric Medicine and Health Sciences (2993-2149). America. 2024;2(3):296-301.
<https://grmjournals.us/index.php/AJPMHS/article/view/3929>
9. Хамроева Дилафруз Шукуровна. Туғма юрак нуқсони мавжуд болаларда пародонт тўқималари ҳолатининг цитологик кўрсаткичларининг дастлабки натижалари //Amaliy va tibbiyot fanlari ilmiy jurnali. Самарканд. 2024;3(4):14-17.
<https://sciencebox.uz/index.php/amaltibbiyot/article/view/10211>
10. Хамроева Дилафруз Шукуровна. Болаларда доғ боскичидаги кариесни кариес инфильтрация усули билан даволашнинг самарадорлиги //International scientific journal «Modern science and research». Тошкент. 2024;3(6/8.2):292-297. Doi:<https://doi.org/10.5281/zenodo.11551732>.
<http://modernscience.uz/uz/post/detail/3806/>
11. Comparative evaluation of the therapeutic effect of individual and complex dental examination in children with common heart disease //International Journal of Integrative and Modern Medicine. America. 2024;2(7):111-115. ISSN:2995-5319
<https://medicaljournals.eu/index.php/IJIMM/article/view/797>
12. The effectiveness of the treatment of initial dental caries in children by the method of caries infiltration //Web of Medicine: Journal of medicine, practice and nursing. ISSN (E): 2938-3765 IFSIJ JIF: 7.555. –Terrassa, Barcelona, Spain. 2024;2(7):7-11.

Entered 20.11.2024