

### INFLUENCE OF PREVENTIVE WORK ON THE STATE OF THE ORAL CAVITY OF THE ADOLESCENTS

*This study was devoted to the definition and improvement of the index of oral hygiene in adolescents. We examined in total 850 children of 12 and 15 years of age. According to the results, the hygiene index was unsatisfactory. After the comprehensive oral care program, the indexes of the OHI-S index were significantly reduced.*

**Keywords:** oral hygiene index, OHI-S, adolescents.

**Introduction.** More than 75% of the world's population suffer from periodontal disease[1]. A particularly severe picture is observed in developing countries. For example, in India- 94% [2], Nicaragua - 96.8 % [3], South America- 93.9 % [4].

Among the periodontal diseases the most common form is gingivitis 84,4-100% [5,6]. In addition, most often this disease occurs in adolescents 12-16 years, this is due to hormonal imbalance[7-9]. Forms of gingivitis also vary. The most commonly found catarrhal form of gingivitis [10,11]. In children, chronic catarrhal gingivitis occurs 94% of cases, it is in adolescence ranges from 30% to 87% [12-15].

In the adolescent period, periodontal disease occurs in 50-99% of cases, mainly male teenagers are more susceptible to the disease and differ as much as possible at the age of 15 [8; 11-14; 16]. According to different authors, the distribution of periodontal diseases in children of the Republic of Kazakhstan at the age of 15 is 11-13% [17]. Destructive forms of periodontal disease in adolescence is 2-6% [11].

Based on the above, the **purpose** of our study was to determine and improve the index of oral hygiene in adolescents.

**Materials and methods of research.** The study involved adolescents 12 and 15 years who were treated for prevention. A total of 850 children were examined: of these, adolescents 12 years old - 430, boys - 222 and girls - 228; children of 15 years of age - 420, of them boys 208 and girls 212.

The examination was carried out in the dental office, with adequate artificial lighting, using a standard set of dental instruments. The condition of the oral cavity was determined by the hygienic index OHI-S (Green, Vermillion, 1964) and its components - plaque (DI-S) and dental calculus (CI-S). Adolescents 12 and 15 years were divided in their age category into 2 subgroups - the studied and control.

After the definition of this index, all children were professionally cleaned teeth, and they were trained in the standard method of cleaning their teeth. The control group was examined after 6 months, and the study group was invited every 2 months for additional cleaning and explanatory work. The statistical processing of the results was carried out using the SPSS v 20 package using the parametric criterion - the Student coefficient.

**Results and discussion.** The average index of OHI-S hygiene index of the children surveyed is presented in the tables1-2.

Table1 -Indicators of the OHI-S of the control group

Number of children and their age	Oralhygiene OHI-S		
	Baseline	After 6 months	
12 years old, n=215 (total 430)	Boys – 111 (total 222)	1.7±0.073	1.6±0.077
	Girls – 114 (total 228)	1.5±0.065	1.4±0.064
15 years old, n=210 (total 420)	Boys- 104 (total208)	1.5±0.064	1.3±0.068
	Girls- 106 (total212)	1.4±0.050	1.2±0.054

Table 2 -Indicators of the OHI-S of the study group

Number of children and their age	Oralhygiene OHI-S			
	Baseline	After 2 months	After 4 months	After 6 months
12 years old, n=215 (total 430)	Boys – 111 (total 222)	1.7±0.084	1.4±0.086	1.2±0.088
	Girls – 114 (total 228)	1.6±0.075	1.3±0.077	1.1±0.073
15 years old, n=210 (total 420)	Boys – 104 (total 208)	1.5±0.059	1.3±0.055	1.1±0.057
	Girls – 106 (total 212)	1.3±0.049	1.1±0.044	0.9±0.050

The results of the study made it possible to reveal the unsatisfactory level of oral hygiene in adolescents.

One of the main causes of periodontal diseases is microbial dental plaque, excessive accumulation of which is observed with unsatisfactory oral hygiene[18].

**Conclusions.**

1. The dental status of both 12-year-olds and 15-year-olds was unsatisfactory.
2. Cleaning teeth of adolescents under the supervision of doctors is an important element in the hygienic education of children, because in a short time it was possible to significantly improve the hygiene index.
- 3.The data obtained indicate that hygienists are needed to maintain the health of the oral cavity.

#### REFERENCES

- 1 Idrees M.M. и др. Prevalence and severity of plaque-induced gingivitis in a Saudi adult population // Saudi Med. J. - 2014. - Т. 35., № 11. - С. 1373–1377.
- 2 Kaur A. и др. An epidemiological study to determine the prevalence and risk assessment of gingivitis in 5-, 12- and 15-year-old children of rural and urban area of Panchkula (Haryana) // Indian J. Dent. Res. - 2014. - Т. 25., № 3. - С. 294–298.
- 3 Gianopoulos V. и др. Oral health assessment in the San Blas and Santa Ana populations of Nicaragua // Int. J. Dent. Hyg. - 2014. - Т. 12., №1. - С. 74–78.
- 4 Carvajal P. и др. Prevalence, severity, and risk indicators of gingival inflammation in a multi-center study on South American adults: a cross sectional study. // J. Appl. Oral Sci. - 2016. - Т.24., №5. - С. 524–534.
- 5 Dhar V. и др. Prevalence of gingival diseases, malocclusion and fluorosis in school-going children of rural areas in Udaipur district // J. Indian Soc. Pedod. Prev. Dent. - 2008. - Т.25., №2. - С. 103–105.
- 6 Al-Haddad K.A. и др. Assessment of Gingival Health Status among 5- and 12-Year-Old Children in Yemen: A Cross-Sectional Study // ISRN Dent. - 2013. - Т.20. - С. 352–359.
- 7 Гализина О.А. Особенности лечения и профилактики начального кариеса и хронического катарального гингивита // Российский медико-биологический вестник имени академика И.П. Павлова. - 2013. - №2. - С. 56–67.
- 8 Pari A. и др. Gingival diseases in childhood - a review // J. Clin. Diagn. Res. - 2014. - Т.8., №10. - С. 1-4.
- 9 Лепёхина О.А., Сущенко А.В., Лепехина Л.И. О влиянии соматической патологии на развитие гингивитов у детей. (обзор литературы) // Вестник новых медицинских технологий. - 2011. - Т.18. - №2. - С. 149-154.
- 10 Фяткулин Р.Р., Дмитриев С.А., Керимов Н.Д. Гингивит у детей и подростков // Бюллетень медицинских интернет-конференций. - 2014. - Т.4. - №12. - С. 88-94.
- 11 Хамитова Н.Х., Мамаева Е.В. Клиника, диагностика и лечение заболеваний пародонта в детском возрасте. - Казань: Медицинская литература, 2009. - 192 с.
- 12 Модина Е.В., Мамаева Е.В., Лопаткина О.И. Патология тканей пародонта и функциональное состояние организма у подростков // Всероссийская конференция "Профилактика стоматологических заболеваний." - Тверь: 2006. - С. 78–84.
- 13 Павлов А.А., Боташева В.С., Угримова А.М. Клинико-морфологическая картина гингивита у школьников // Кубанский научный медицинский вестник. - 2012. - №4. - С. 149–151.
- 14 Смоляр Н.И., Машкаринец А.А. Распространенность хронического катарального гингивита у девочек в зависимости от периода полового созревания // Вестник стоматологии. - 2012. - Т. 80., №3. - С. 105–108.
- 15 Водолацкий М.П., Павлов А.А., Некрасова А.А. Характер и патогенез развития воспалительного процесса в тканях пародонта у детей // Медицинский вестник Северного Кавказа. - 2011. - Т.24., №4. - С. 125-129.
- 16 Рысбаева Ж.И. и др. Клинико-гистологическое исследование подростков с заболеванием пародонта // Вестник Казахского Национального медицинского университета. - 2014. - №2(2). - С. 137–141.
- 17 Алдашева М.А. Профилактика основных стоматологических заболеваний у детей. - Алматы: 2004. - 143 с.
- 18 Леус Л.И. Леус // Вестник стоматологии (АСУ). - 2005. - №2. - С. 82–85.

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#### АЛДЫН АЛУ ШАРАЛАРЫНЫң ЖАСӘСПІРІМДЕР АУЫЗ ҚҰЫСЫНЫң ЖАҒДАЙЫНА ӘСЕР ЕТУІ

**Түйін:** Бұл зерттеу жасәспірімдердегі ауыз құысы гигиена индексін анықтау және жақсартуға арналған. Біз 12 және 15 жастағы жалпы 850 баланы зерттедік. Алынған мәліметтер гигиена индексінің қанағаттанарлықызыз екенін көрсетті. Ауыз құысының күтімі бойынша жүргізілген кешенді бағдарламадан кейін OHI-S индексінің көрсеткіштері айтарлықтай төмендеді.

**Түйінді сөздер:** ауыз құысы гигиенасының индексі, OHI-S, жасәспірімдер.

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#### ВЛИЯНИЕ ПРОФИЛАКТИЧЕСКОЙ РАБОТЫ НА СОСТОЯНИЕ ПОЛОСТИ РТА ПОДРОСТКОВ

**Резюме:** Данное исследование было посвящено определению эффективности профилактических мероприятий у подростков. Нами было обследовано всего 850 детей 12-ти и 15-летнего возраста. Согласно полученным результатам индекс гигиены был неудовлетворительным. После проведенной комплексной программы по уходу за полостью рта, показатели индекса OHI-S были значительно снижены.

**Ключевые слова:** индекс гигиены полости рта, OHI-S, подростки.