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### CONGENITAL CLEFTS OF THE UPPER LIP AND PALATE CHILDREN IN THE FERGHANA VALLEY

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**Abstract:** Congenital clefts of the upper lip and palate (CCL) have a great influence on the formation of the child's dental system. The article presents for the first time data from an analysis of the birth rate, prevalence, and ethno-territorial characteristics of CCL in children in the Fergana Valley.

**Keywords:** Epidemiology, congenital cleft lip and palate, treatment, congenital malformations, rehabilitation.

#### INTRODUCTION

The intensive development of medical genetics in recent years has led to a significant change in the traditional ideas that existed in the past about the etiology and pathogenesis of many diseases. Research in recent years has shown that in the structure of morbidity and mortality of the population, a significant share is occupied by congenital and hereditary diseases, and the influence of genetically determined pathology on the main indicators of demographic development (general mortality, infant and child mortality, fertility, natural increase population) is constantly growing.

#### MAIN PART

We studied the birth rate of children with CCL according to the register of the Medical Genetic Consultation of the Medical Information Center of the Ministry of Health and Social Development of the Fergana Valley, and also analyzed the reporting and statistical data of the Republican Center for the Treatment and Rehabilitation of Children with Congenital Anomalies and Acquired Deformities of the Maxillofacial "City Dental Clinic".

In order to determine the therapeutic and preventive effect of Asept toothpaste and balm, 48 children aged 3 to 7 years were examined, 25 boys, 23 girls. Children used Asept toothpaste independently 2 times a day (morning and evening) for 30 days, in children with periodontitis, gum balm was used twice a day in combination with a rinse. In accordance with the clinical testing design, two groups of 30 (1st – main) and 18 (2nd – control) children were formed.

The anti-inflammatory activity of Asept was judged by the PMA index. The PMA index (papillary-marginal-alveolar index) was determined according to the method of Parma (1960). The condition of the gums of each tooth was assessed visually, after staining it with the Schiller-Pisarev solution. The PMA index is assessed using the following codes and criteria: 0 – absence of inflammation (the gums are not stained with Schiller-Pisarev solution); 1 – inflammation of only the gingival papilla (P); 2 – inflammation of the marginal gum (M); 3 – inflammation of the alveolar gum (A). The PMA index was calculated using the formula:

$$PMA = \frac{\text{sum of points}}{(3 \times \text{number of teeth}) \times 100\%}$$

In the structure of congenital malformations of the fetus, CCLs occupy sixth place (4.12%). Among all congenital defects, the proportion of children with CCL ranges from 2.17% to 4.63%, and in recent years there has been a steady increase.

The frequency of births of children with CCL in the Fergana Valley per 1000 births in the period from 2000 to 2020 ranged from  $0.47 \pm 0.1\%$  in 1990 to  $2.62 \pm 0.4$  in 2014 per 1000 births with a downward trend in 2011 ( $1.54\%$ ), and in 2022 it amounted to  $1.44\%$ . The average birth rate of children with CCL from 2000 to 2022 was  $1.35 \pm 0.16\%$ . According to the

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Republican CCL Register in the Fergana Valley, from 2000 to 2022, 433 children were registered with congenital anomalies of the dentofacial system, of which 287 were registered for the period 2011–2022. The incidence of CCL in the Fergana Valley is 1 case per 741 newborns.

In order to identify risk factors for the birth of children with this pathology, we conducted a multivariate analysis, which showed that disturbances in the course of pregnancy and the mother's health (toxicosis of pregnancy, cases of respiratory diseases during pregnancy) were noted in 100% of cases, viral infections were identified in 35 %, carriage of viral diseases (herpes, cytomegalovirus, hepatitis B) was in 80%, various gynecological pathologies (adnexitis, vulvovaginitis) - in 75%, a history of taking antibiotics - in 86%, antipyretic drugs - in 75% , unbalanced diet – in 68%, maternal smoking during pregnancy – in 35%, occupational hazards (contact with paints, varnishes, chemicals) – in 72%. Prematurity (at 28-36 weeks) was detected in 24% of cases.

An expert assessment of the state of outpatient and inpatient care for children with CCL revealed violations in the timing of staged rehabilitation associated with a lack of awareness among pediatricians and the lack of a clearly coordinated rehabilitation system.

We have found that children with CCL have reduced indicators of local immunity [1, 9], most of them have inflammatory diseases of the oral mucosa, gingivitis and stomatitis. Patients with CCL have poor or lacking oral health skills and motivation. Against the background of unsatisfactory oral care, we often observed stomatitis, diseases of the marginal periodontium in the form of catarrhal gingivitis, which, in the absence of adequate treatment, can lead to the development of periodontitis [1, 2]. When studying the condition of the marginal periodontium in the examined children using the marginal periodontal disease index (MPI), the following data were obtained. In children of group 1 (anomalies of jaw development), we observed a risk of developing moderate periodontal diseases, the CPI indicator was  $3.17 \pm 0.62$ . The level of hygiene according to the hygiene index in patients with CCL was 0.09, which corresponds to a very low level.

## CONCLUSION

1. Among congenital malformations, CCLs are in 6th place (frequency - 4.12%), the frequency among children with congenital anomalies of the dental system ranges from 2.17% to 4.63%
2. The average birth rate of children with CCL in the Fergana Valley is  $1.35 \pm 0.16\%$ .
3. Congenital anomalies of the dental system are more often registered in Fergana and Andijan.
4. As a result of multivariate analysis, it was proven that in mothers who gave birth to children with CCL, gynecological pathology is registered in 75%, carriage of viral diseases - in 80%, taking non-steroidal anti-inflammatory drugs - in 75%, antibiotics - in 86% , stressful situations in the mother in the first trimester – in 82%, occupational hazards – in 72%, unbalanced nutrition – in 68%, alcohol abuse – in 48%, smoking – in 80% of cases.
5. Asepta toothpaste and balm have a cleansing and anti-inflammatory effect and can be recommended for the prevention and treatment of inflammatory diseases of the oral cavity for children with CCL.
6. The introduction of a regional protocol for step-by-step orthodontic treatment of children with CCL contributed to improving the quality of medical care and quality of life of patients with CCL.

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