

FORMS OF CONGENITAL CLEFT LIP AND PALATE IN THE FERGHANA VALLEY WITH ECOTOXICANTS

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Abstract: Environmental pollution with petrochemical ecotoxics leads to an increase in the number of children with congenital cleft lip and palate. A relationship has been established between the level of air pollution by gross emissions from petrochemical production enterprises and the severity of clinical and anatomical forms of congenital cleft lip and palate in children living in an industrial area. This is important and has a role in the prenatal prevention of congenital cleft lip and palate.

Keywords: congenital cleft lip and palate, severe anatomical forms of congenital cleft lip and palate, ecology, petrochemical ecotoxics.

INTRODUCTION

Congenital cleft lip and palate (CCL) is one of the most common congenital pathologies (16.8% of all fetal pathologies), which forms in the womb in the early stages of pregnancy [1]. According to statistics, CCL is the most common malformation of the face and jaws (up to 86%) and leads to significant functional and aesthetic impairments. CCL, varying in severity and type, can be an isolated anomaly of fetal development, or it can be one of the defects in various syndromes. In the etiological aspect, CCL can be caused by heredity or gene mutation, as well as a number of teratogenic factors acting on the fetus during the formation of facial structures [2].

MAIN PART

In order to study the structural features of the clinical and anatomical forms of CCL in children living in the Fergana Valley, we studied the medical documentation in the department of maxillofacial surgery of the children's clinical hospital for the period from January 1, 2000 to December 31, 2023. During the analyzed period here 3463 children with CCL from birth to 16 years old underwent treatment and follow-up.

In children with this pathology, the clinical forms of CCL, in accordance with the classification, were distributed as follows:

- isolated cleft palate - in 1494 (43.14%);
- combined cleft of the upper lip, alveolar process, soft and hard palate - in 1063 (30.70%);
- isolated cleft lip - in 906 (26.16%).

According to the results of the study, in children with CCL, the structure of clinical forms was dominated by more severe forms - congenital cleft palate and combined clefts, which amounted to a total of 73.84%. There are naturally more unilateral clefts of the upper lip (80.67%), and among unilateral clefts, left-sided clefts of the upper lip (60.48%) predominate over right-sided ones (20.19%).

Among congenital cleft palates, clefts of the soft and hard palate predominated - 1065 (71.29%), congenital cleft of the soft palate - 220 (14.73%), congenital complete cleft of the soft and hard palate and alveolar process - 153 (10.24%) and congenital cleft of the alveolar ridge and anterior palate - 56 (3.74%).

In the structure of combined clefts of the upper lip, alveolar process, soft and hard palate, incomplete clefts predominated - 585 (55.03%), complete - 378 (35.56%) and hidden - 100 (9.41%).

Based on the results of an analysis of medical documentation of 3463 patients with CCL, it was revealed that 2017 children (58.24%) were born and live in areas with a developed petrochemical industry, 1446 children (41.76%) are from areas without oil. technical ecotoxics.

We were the first to identify a relationship between the severity of clinical and anatomical forms of CCL and the residence of children in areas with the petrochemical industry.

Thus, in an area without petrochemical ecotoxics, the CCL structure was as follows:

- isolated cleft lip - in 452 children (31.3%);
- isolated cleft palate - in 643 children (44.5%);
- combined cleft of the upper lip, alveolar process, hard and soft palate - in 351 children (24.2%).

More severe forms - congenital cleft palate and combined clefts - amounted to a total of 68.7% (994 children).

CCL structure in an area with petrochemical ecotoxics:

- isolated cleft lip - in 454 children (22.5%);
- isolated cleft palate - in 851 children (42.2%);
- combined cleft of the upper lip, alveolar process, hard and soft palate - in 712 children (35.3%).

More severe forms - congenital cleft palate and combined clefts - amounted to a total of 77.5% (1563 children).

CONCLUSION

Our data indicate that in an area with petrochemical ecotoxics, the percentage of severe forms of congenital cleft lip and palate is higher (77.5%) than in an area without petrochemical ecotoxics (68.7%). As a result of the study, the relationship between the environmental disadvantage of cities and regions of the Fergana Valley and the highest rates of birth of children with CCL, the structure of the types of CCL, among which the most severe forms were more common, were identified, and the need for prevention and rehabilitation of children with CCL in the region was determined with unfavorable environmental factors.

Thus, environmental pollution with petrochemical ecotoxics leads to an increase in the number of children with congenital cleft lip and palate. There is a relationship between the level of air pollution by gross emissions from petrochemical production enterprises and the severity of clinical and anatomical forms of congenital cleft lip and palate in children living in an industrial area. This is important and has a role in the prenatal prevention of congenital cleft lip and palate.

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