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ANALYSIS OF COMPLICATIONS AFTER URANOPLASTY IN CHILDREN WITH CONGENITAL CLEFT LIP AND PALATE BASED ON CLINICAL AND CYTOLOGICAL STUDIES



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КЛИНИК-ЦИТОЛОГИК ТАДКИКОТЛАР АСОСИДА ЮКОРИ ЛАБ ВА ТАНГЛАЙНИНГ ТУҒМА КЕМТИГИ БЎЛГАН БОЛАЛАРДА УРАНОПЛАСТИКАДАН КЕЙИНГИ АСОРАТЛАРНИ ТАХЛИЛИ

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АНАЛИЗ ОСЛОЖНЕНИЙ ПОСЛЕ УРАНОПЛАСТИКИ У ДЕТЕЙ С ВРОЖДЕННОЙ РАСЩЕЛИНОЙ ГУБЫ И НЕБА НА ОСНОВАНИИ КЛИНИКО-ЦИТОЛОГИЧЕСКИХ ИССЛЕЛОВАНИЙ

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Резюме. Тадқиқот мақсади. Клиник ва цитологик тадқиқотлар асосида юқори лаб ва танглай туғма кемтиги бўлган болаларда операциядан кейинги асоратларни тахлил қилиш. Материаллар ва усуллар. ТДСИ клиникасининг болалар юз-жаг жаррохлиги бўлимида 21 нафар юқори лаб ва танглай тугма кемтиги билан оғриган болалар кўрикдан ўтказилди ва даволанди. Қайта тиклаш жараёнларини ўрганиш учун танглай яраларининг латерал жойларидан смеарларнинг цитологик текшируви ўтказилди. Тампон билан қириб ташлаш натижасида олинган материал қопламаға ўтказилди, махкамланди ва Романовский-Гимза бўйича полихром усулидан бири билан буялди. Натижалар ва унинг мухокамаси. Анъанавий даволанишдан утган 21 бемордан 7 таси яраси инфекцияланган. Даволаниш натижасида 5-6 кунга келиб 1 беморда увуланинг тўлиқ, 2 нафар беморда чокларнинг қисман очилиси аниқланган. Цитологик тадқиқот натижалари шуни кўрсатдики, 9-куни десквамацияланган эпителий хужайраларининг таркиби сезиларли даражада камайди, уларда лейкоцитлар, асосан сегментланган нейтрофиллар билан ўралган холда, аниқ дегенерация жараёнлари аниқланди. Хулоса. Жаррохликдан кейин қаттиқ танглай шиллиқ қаватининг цитологиясини ўрганиш шуни кўрсатдики, операциядан кейинги яранинг битиши тананинг адаптив-компенсатор реакцияларининг бир томонини тавсифлайди.

Калит сўзлар: юқори лаб ва танглайнинг туғма кемтиги, оғиз бўшлиғи шиллиқ қаватининг цитологик текшируви, инфекцияланган яра, чокларнинг очилиши.

Abstract. Purpose of the study. Analysis of postoperative complications in children with congenital cleft lip and palate (CCLP) based on clinical and cytological studies. Material and methods, 21 children with CCLP were examined and treated in the Department of Pediatric Maxillofacial Surgery of the TSDI Clinic. To study the processes of regeneration, a cytological examination of smears from the lateral areas of the palate wounds was carried out. The material obtained by scraping with a swab was transferred to a coverslip, fixed and stained with one of the polychrome method according to Romanovsky-Giemsa. Results and its discussion. Of the 21 patients who received conventional treatment, 7 wounds became infected. As a result of treatment, by 5-6 days, 1 patient had a complete divergence of the tongue, and 2 patients had a partial divergence of the sutures. The results of a cytological study showed that on the 9th day the content of desquamated epithelial cells significantly decreased, while they were still surrounded by leukocytes, mainly segmented neutrophils, with pronounced degeneration processes. Conclusions. The study of the cytology of the mucous membrane of the hard palate after surgery showed that the healing of a postoperative wound characterizes one of the sides of the adaptivecompensatory reactions of the body.

Key words: congenital cleft lip and palate, cytological examination of the oral mucosa, infected wound, suture divergence.

Relevance. Congenital cleft lip and palate (CLCL) is one of the most common malformations and accounts for 1.6-3.6% of all congenital malformations [2,4].

Of the many aspects of the CCLP problem, the defect clinic has been studied in the most detail, and therefore numerous highly effective methods for surgical elimination of the defect have been proposed. At the same time, the frequency of unsatisfactory outcomes of the operation, accompanied by suture divergence, remains high [4,5]. According to the literature, the divergence of the seams after uranoplasty is observed in 16-52%. Many authors associate the formation of postoperative defects with errors in the surgical technique and the costs of surgical treatment [3,5,6].

Among the causes of complications, the leading one is suppuration of the wound, leading to partial or complete divergence of the sutures. Cicatricial wound healing after surgery causes palatopharyngeal insufficiency and other disorders. The ultimate goal of uranoplasty is not only the elimination of anatomical disorders, but also the creation of a functionally complete palate [1-3].

In our clinic, for many years, the operation of uranoplasty with narrowing of the palatopharyngeal ring according to Frolova and Frolova-Makhkamov has been successfully performed. The effectiveness of uranoplasty also largely depends on the functional and metabolic activity of the tissues of the oral cavity. However, the morphological features of the soft tissues of the hard palate after uranoplasty and in the dynamics of wound healing have not been fully studied.

Purpose of the study. Study of the course of wound healing after uranoplasty in children with congenital cleft palate.

Material and methods. 21 children with CCLP were examined and treated by the traditional method in the department of pediatric maxillofacial surgery of the clinic of the Tashkent State Dental Institute from 2019 to 2022. Of these, 11 of them had an isolated cleft, 10 had a through one, and 4 had 2 third-party. All children after the completion of uranoplasty on the bare surface of the hard palate were applied with iodoform-gauze swab. On the 3rd day, the protective plate was removed, the iodoform tampon was removed from the surface of the mucoperiosteal flap. Every day, 2-3 times a day, the oral cavity and wound were irrigated with antiseptic solutions of furatsilin, and sea buckthorn oil was instilled into the nose and oral cavity.

To study the processes of regeneration, a cytological examination of smears was carried out in order to identify: violations of the normal course of the process of differentiation of the epithelium during the development of inflammatory, degenerative processes, the state of the sutures and edges of postoperative wounds; studying the nature of microbial agents associated with the surface of the mucous membrane and causing its infection. Cytological studies were carried out in the laboratory of tumor biology of the Republican Specialized Scientific and Practical Medical Center of Oncology and Radiology.

To detect the migration of blood cell elements, smears were taken from the surface of the mucous membrane of the lateral sections of the wounds after uranoplasty by the glass-on-glass method on days 5, 7 and 9. The material obtained by scraping with a swab was transferred to a coverslip, fixed and stained with one of the polychrome method according to Romanovsky-Giemsa.

The data obtained during the study were subjected to statistical processing on a personal computer using the Microsoft Office Excel-2010 software package, including the use of built-in statistical processing functions.

Results and discussion. The first two days after the operation, almost all patients had dizziness and general weakness. Temperature reaction is the reaction of the whole organism to surgery. On the first day after the operation, the body temperature increased to 38.5-39.0 C. The body temperature persisted even up to the fourth day with a gradual decrease and returned to normal on the fifth day after the operation. Sleep disturbance after surgery was noted mainly for the first two days due to pain on the wound surface. Pain when touching the tongue and soft palate with the tongue was also temporary.

Of the local symptoms, there was hyperemia of the soft tissues of the palate, swelling of the soft tissues of the palate and pharynx in almost all patients after uranoplasty. A downward trend was observed by the 5th day after the operation, however, such symptoms as fibrin plaque in the soft palate area, as well as inflammation in the soft palate area, increased.

The development of inflammatory complications largely influenced the failure of the sutures and edges of the postoperative wound. Of the 21 patients who received traditional treatment, 7 wounds became infected, and inflammation developed in the area of the soft palate (along line A) and uvula. As a result of treatment, by 5-6 days, 1 patient had a complete divergence of the uvula, 2 patients had a partial divergence of the sutures (Fig. 1). In 4 patients, the wound healed by secondary intention, which in turn led to insufficiency of the palatopharyngeal ring.

We obtained the following results of cytological studies: on the 5th day there were a lot of bacteria (mainly cocci), accumulations of rejected epithelium and leukocytes, the bulk of which were segmented neutrophils. Also, macrophages, lymphocytes, fibroblasts prevailed among the cellular elements (Fig. 2, Fig. 3).

On day 9, it was found that the content of desquamated epithelial cells was significantly reduced, while they were still surrounded by leukocytes, mainly segmented neutrophils, with pronounced degeneration processes (Fig. 4).

A large number of lymphocytes were noted, which had a medium and small typical structure (Fig. 5). There was no change in the content of medium and large lymphocytes, as well as plasma cells.

The proportion of macrophages has increased, some of which have acquired a cellular structure in the form of giant foreign bodies.

The cytological picture is characterized by degeneration of the desquamated epithelium, from which only shadows are preserved, wound detritus surrounded by neutrophilic leukocytes (Fig. 6).



A) before surgery



C) 5 days after surgery



B) 3 days after surgery



D) 7 days after surgery (complete divergence of the uvula)

Fig.1. Dynamics of the postoperative course in children with CCLP

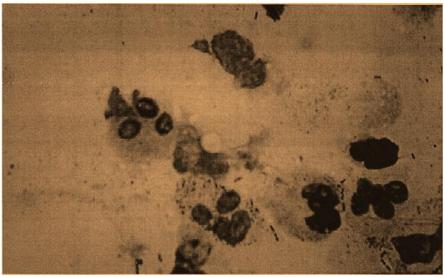


Fig. 2. 5 days after the operation. Traditional method of care. Macrophages, neutrophils, lymphocytes. Infestation with bacteria. Coloring: Romanovsky-Giemsa. SW. 10*100*

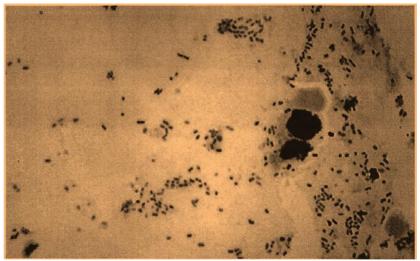


Fig. 3. 5 days after the operation. Traditional method of care. Neutrophil, with loss of constriction in the nucleus. Infestation with bacteria. Coloring: Romanovsky-Giemsa. SW. 10*100*

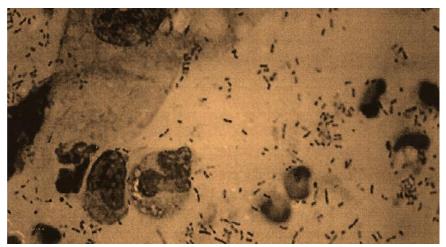


Fig. 4. 9 days after surgery. Traditional method of care. Desquamated epithelial cells surrounded by neutrophils. Inoculation with microbial flora. Coloring: Romanovsky-Giemsa. SW. 10*100*

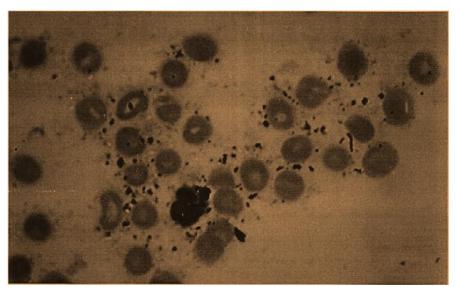


Fig. 5. 9 days after surgery. Traditional method of care. A large number of lymphocytes. Inoculation with microbial flora. Coloring: Romanovsky-Giemsa. SW. 10*100*

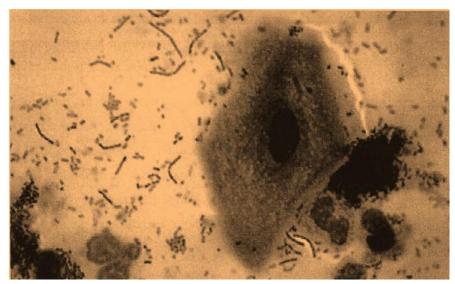


Fig. 6. 9 days after surgery. Traditional method of care. Desquamated epithelial cells. Inoculation with microbial flora. Coloring: Romanovsky-Giemsa. SW. 10*100*

Conclusions. 1. Cytological examination of the mucous membrane of the hard palate after uranoplasty showed that the healing of a postoperative wound characterizes one of the sides of the adaptive-compensatory reactions of the body.

2. Preoperative starvation, anesthesia, surgery, as well as the initial status of children with CCLP become stress factors leading to the development of hypoxia. All this dictates the need to include a new special complex of therapeutic measures.

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АНАЛИЗ ОСЛОЖНЕНИЙ ПОСЛЕ УРАНОПЛАСТИКИ У ДЕТЕЙ С ВРОЖДЕННОЙ РАСЩЕЛИНОЙ ГУБЫ И НЕБА НА ОСНОВАНИИ КЛИНИКО-ЦИТОЛОГИЧЕСКИХ ИССЛЕДОВАНИЙ

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Резюме. Цель исследования. Анализ послеоперационных осложнений у детей с врожденной расщелиной губы и неба (ВРГН) на основании клиникоцитологических исследований. Материал и методы. Обследованы и пролечены 21 детей с ВРГН в отделении детской челюстно-лицевой хирургии клиники ТГСИ. Для изучения процессов регенерации было проведено цитологическое исследование мазков с боковых участков ран неба. Материал, получаемый методом соскоба с помощью тампона, переносили на покровное стекло, фиксировали и окрашивали одним из полихромных методом по Романовскому-Гимзе. Результаты и их обсуждение. Из 21 больных, получавших традиционное лечение, у 7 рана инфицировалась. В результате лечения к 5-6 суткам у 1 больного полное расхождение язычка, у 2 больных - частичное расхождение швов. Результаты цитологического исследования показали, что на 9 сутки содержание слущенных эпителиальных клеток значительно сократилось, при этом они по-прежнему были окружены лейкоцитами, преимущественно, сегментоядерными нейтрофилами, с выраженными процессами дегенерации. Выводы. Исследование цитологии слизистой оболочки твердого неба после операции показало, что заживление послеоперационной раны характеризует одну из сторон адаптационно-компенсаторных реакций организма.

Ключевые слова: врожденные расщелины верхней губы и неба, цитологическое исследование слизистой оболочки полости рта, инфицированная рана, расхождение швов.