

healing remains relevant. Surgical method has to provide: minimal duration of hospitalization, be as painless as possible, complete cure with minimal risk of recurrence.

The aim of the study is to determine and compare duration of pain, pain intensity and postoperative wound healing according to the different methods of operative treatment of pilonidal sinus in children. 40 cases of PS in children, operated in Children's Clinical City Hospital were analyzed. Despite of surgery method, before operation all children underwent a cleansing enema and shaving of surgical field. Operations were performed under general anesthesia in the prone-jack knife position. The methods of skin-fascial plastic and classical method (sewing to the fascia) were compared. Duration of postoperative wound healing, duration of pain and pain intensity were determined.

Postoperative wound healing rate was 50% shorter in cases of use of skin-fascial plastics in comparison with the fascia method. Duration of pain was 25% less in children, operated with a skin-fascial plastic method. Skin-fascial plastic provides less pain intensity to 60% at the first day after operation and 70% at the fifth and seventh days according to the pain rate of classical method.

Skin-fascial plastic method provides less pain intensity to 50%, less duration of pain to 25% and provides less pain intensity up to 70% in comparison to classical method.

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MAXILLARY SINUSITIS AND DIABETES MELLITUS

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Diabetes mellitus (DM) is a very common disease. Specialists of various profiles, including otolaryngologists, deal with this problem. It should be noted that not much attention has been paid to the state of the ENT organs with diabetes, although the pathology is found in 59% of patients with diabetes. The treatment of such patients is not an easy task for both the otolaryngologist and the endocrinologist. Patients with diabetes are known to have a more severe course of ENT diseases and a poorer prognosis of surgery.

In the structure of morbidity in ENT pathology, a leading place belongs to acute sinusitis (5-10%).

According to the data of an epidemiological study, the prevalence of chronic sinusitis among patients with diabetes at the age of 18–44 years is 28.4%, compared with 18.4% among the rest of the population of the same age.

The main causative agents of acute rhinosinusitis are *Streptococcus pneumoniae* and *Haemophilus influenzae*. In chronic sinusitis, *P. aeruginosa*, *S. aureus*, *Actinomyces*, as well as fungal pathogens are more often detected.

In patients with diabetes, the most common causative agents of sinusitis are the gram-positive bacteria *S. aureus*, *S. epidermidis*, *S. pyogenes*, *S. pneumoniae*; gram-negative bacteria *E. coli*, *P. aeruginosa*, *M. catarrhalis*, *H. influenzae*; anaerobic *P. mirabilis*, *Peptostreptococcus*, *Bacteroides* spp.; fungal microorganisms of the genera *Aspergillus*, *Mucor*. It is noteworthy that 30% of diabetics carry *S. aureus* in the nasal cavity, compared with 11% in the general population. In patients with diabetes, acute fungal sinusitis is often observed, which is facilitated by metabolic disorders. This is especially due to the acidic environment of tissues rich in glucose and an increase in iron content due to disturbance of its connections with transferrin in the blood.

Moreover, a significant decrease in nasal mucociliary clearance and pH of nasal secretions is determined. Thus, the nasal mucociliary clearance in patients with diabetes was 2.5 times higher than in healthy individuals, and the pH of the nasal secretion increased to 7.96 ± 0.75 (compared with the norm of 6.43 ± 0.67).

Sinusitis in diabetes occurs in the background of decrease in the activity of the main antimicrobial factors of immunity, the affinity of produced antibodies, opsonizing properties of serum, phagocytic and bactericidal activity of neutrophils. A decrease in the bactericidal activity of neutrophils is associated with disorders of both oxygen-dependent and oxygen-independent antimicrobial systems. Patients with diabetes are vulnerable to a rapid progression of ENT infection

and its subsequent complications. Clinical manifestation of purulent sinusitis in patients with diabetes is characterized by a long and sluggish course, the involvement of other paranasal sinuses in the process, atypical X-ray picture and the frequent development of complications - rhinogenic meningitis and phlegmon of the orbit. In the blood of these patients, in contrast to patients without diabetes, there is an increase in the relative and absolute number of stab and segmented neutrophils, a sharp increase in ESR. The disease proceeds in the background of pronounced changes in the immune status, which affect all the links of immunity, including a significant decrease in phagocytosis indicators and an increase in the content of circulating immune complexes of small size.

Thus, the course of purulent-inflammatory diseases of the upper respiratory tract in diabetes mellitus is peculiar and atypical, often leads to the development of formidable complications and even death. Effective treatment of foci of inflammation in the ENT organs in the background of diabetes mellitus decompensation is practically impossible. Particular attention should be paid to the study of the etiopathogenetic mechanisms of the development of diseases of the ENT organs in patients with diabetes with the development of new therapeutic algorithms. It means that only close cooperation of two specialists - an otolaryngologist and an endocrinologist will help maintain health and prolong the patient's life.

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CHARACTERISTICS OF MICROBIOTA OF THE UPPER JAW IN CHRONIC SINUSITIS IN PATIENTS WITH TYPE 1 DIABETES MELLITUS

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The aim of the study was to determine the qualitative and quantitative composition of the microbiota in patients with chronic purulent maxillary sinusitis with type 1 diabetes mellitus. Bacteriological and micrological methods were used to determine the qualitative and quantitative composition of the microbiota of the biotope of the maxillary sinus cavity in 50 patients with chronic purulent maxillary sinusitis with type 1 diabetes mellitus and 37 patients with chronic purulent maxillary sinusitis of the same age without concomitant pathology.

In the contents of the cavity of the maxillary sinuses of patients with chronic purulent maxillary sinusitis, combined with type 1 diabetes, 175 strains of different species of microorganisms belonging to 24 different taxonomic groups were isolated and identified, which in the biotope form different qualitative microbial associations consisting of 3 of different species in 58% of patients, of 4 species in 34.0% and of five different taxa - in 8.0% of patients.

Chronic purulent maxillary sinusitis in patients with type 1 diabetes disturbs microbial associations. In patients with chronic purulent maxillary sinusitis, the number of associations consisting of 3 species increases 2.7 times, but the number of associations consisting of 4 species of microorganisms decreases by 11.76%. The number of associations consisting of 5 species in patients decreases by 3.5 times.

Among the most numerous associations consisting of 3 species of pathogenic and conditionally pathogenic autochthonous facultative microorganisms, the associations of the following representatives are more common: *M. catarrhalis*, *S. aureus* and *Bacteroides* spp. ; *Prevotella* spp., *S. viridans* and *S. salivarius*; *M. catarrhalis*, *Prevotella* spp. and *S. epidermitis*; *H. influenzae*, *Prevotella* spp. and *S. epidermitis*.

Associations consisting of 4 species were found in 34% of patients and consisted of *S. pneumoniae*, *M. catarrhalis*, *S. pyogenes*, *Fusobacterium* spp; *S. pneumoniae*, *E. coli*, *S. aureus* and *Candida* spp. ; *S. pneumoniae*, *E. coli* Hly +, *S. viridans* and *Candida* spp.

In patients with chronic purulent maxillary sinusitis combined with severe type 1 diabetes, there were associations consisting of *S. pneumoniae*, *M. catarrhalis*, *Candida* spp. and *S. epidermitis*; *S. pneumoniae*, *M. catarrhalis*, *S. pyogenes*, *S. epidermitis*; *Bacteroides* spp., *H. influenzae*, *S. pyogenes*, *Enterobacter* spp.; *Bacteroides* spp., *H. influenzae*, *S. pyogenes*, *Candida*