

COMPARISON OF HISTOLOGICAL VARIATIONS IN ACUTE PHLEGMONOUS CHOLECYSTITIS TREATED WITH PUNCTURE AND COMBINATION THERAPY WITH PUNCTURE AND CYTOKINE

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Relevance. The incidence of cholecystitis is rising [1], peaking at 60 years of age. Over recent years, the growth of non-operative treatment for acute cholecystitis, especially in emergency conditions or patients with a surgical high-risk background is rising. Immunostimulants (Cytokine) are able to stimulate the immune system and inhibit disease progression [2]. Thus, the potential role of immunostimulants in older patients in high-age groups with acute cholecystitis seems to be of great interest.

Research objectives. Investigate reparative processes in gallbladders affected by *E. coli*-induced acute phlegmonous cholecystitis, focusing on combination treatment with puncture and Cytokine.

Research methods. Involved 24 Chinchilla rabbits (12 males and 12 females, each weighing 3.2 ± 0.15 kg) with induced acute phlegmonous cholecystitis using *Escherichia coli*. The rabbits were randomly divided into three groups: control group (n=6, no treatment), experiment 1 (n=6, treated with puncture and normal saline), and experiment 2 (n=6, treated with puncture and Cytokine). Each group was further divided based on histopathological collection timing at 48 and 72 hours post-experiment, with gallbladder wall sections stained with hematoxylin and eosin for analysis. We used Fisher's exact test since the sample size is small. $P < 0.05$ was considered statistically significant.

Results and its discussion. In Experiments 1a and 1b, gallbladder tissues were collected at 48 and 72 hours. Histological analysis showed necrosis, micro-abscesses, ulcerative defects, severe inflammation, and low histiocytic infiltration in the mucous membranes compared to the control group. The 72-hour evaluation displayed more severe morphological features, but these differences were not statistically significant compared to the 48-hour specimens. In Experiment 2, treated with Cytokine (0.6 mL – 50000 IU/mL once daily), tissues assessed at 48 hours revealed no erosions or ulcerative defects, but mild inflammation in underlying layers with the presence of neutrophilic infiltrations compared to control group evaluated at 48 hours. At 72 hours, no ulcerative defects were observed, and there was a significant reduction in inflammatory markers alongside increased histiocytic infiltration compared to the control group (p-value 0.0027). Cytokine effects were more effectively assessed in tissue samples collected at this time compared at 48 hours. The treatment promoted rapid tissue regeneration and enhanced anti-inflammatory properties, leading to quicker recovery of epithelial integrity. In contrast, inflammation lasted longer in the puncture-only group.

Conclusion. Cytokine therapy combined with puncture techniques proved more effective in our study. The group receiving both treatments showed positive changes in histological specimens compared to those treated with puncture alone.

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INFLUENCE OF OZONE THERAPY ON THE ORAL HYGIENE CONDITION IN THE COMPLEX TREATMENT OF CHRONIC CATARRHAL GINGIVITIS IN CHILDREN

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Relevance. The issue of periodontal pathology in children is driven both by the excessive prevalence of these diseases and by the fact that untimely treatment during childhood and adolescence eventually leads to severe, irreversible damage to periodontal tissues in adulthood [1]. According to WHO experts, 80% of the pediatric population exhibits either individual signs or the full range of symptoms associated with periodontal inflammation [2]. Currently, a substantial database of epidemiological data on the prevalence of periodontal diseases in children has been accumulated, indicating a continuing increase in morbidity, including in Uzbekistan [3].

Research objectives. was to assess the oral hygiene condition in children with chronic catarrhal gingivitis during the mixed dentition period.

Research methods. The study involved 80 children aged 7–10 years with chronic catarrhal gingivitis and 15 practically healthy children of the same age group as a control. The first examination was conducted before the implementation of preventive measures. The second examination took place one month after the start of preventive measures, the third — six months after the first examination, and the fourth — one year later. All children were divided into 5 groups: 4 groups of 20 children each, and a fifth group of 15 children.

Results and its discussion. The implementation of preventive measures led to improvements in oral hygiene indicators among children aged 7–10 years across all study groups. At the first examination, the hygiene status measured by the Fedorov–Volodkina index in children of all groups was unsatisfactory, averaging 2.10 ± 0.08 points. After the first set of measures, oral hygiene indicators worsened