

THE INCIDENCE OF APHTHOUS STOMATITIS IN CHILDREN RECEIVING ANTIBIOTIC THERAPY

Author: Khadzhaev Tokhir Avazkhanovich

Student of the Faculty of Pediatrics

Location: Fergana, Republic of Uzbekistan

ABSTRACT: Relevance. Aphthous stomatitis is an inflammatory disorder of the oral mucosa, often marked by the appearance of recurrent, painful ulcerations. In pediatric patients, antibiotic therapy has been increasingly recognized as a contributing factor in the development of this condition. Antibacterial medications may disrupt the natural balance of the oral microbiota, weaken mucosal defenses, and alter local immune regulation, thereby creating favorable conditions for the onset of aphthous lesions.

Keywords: aphthous stomatitis, children, antibiotic treatment, oral microbiome, inflammation, cephalosporins, pediatric dentistry.

Objective. To evaluate the incidence of aphthous stomatitis in children undergoing systemic antibiotic therapy and to identify potential correlations with specific antibiotic classes and treatment duration.

Materials and Methods. The clinical study was conducted with 120 children aged 1 to 12 years. Participants were divided into two groups: the main group (n=60) received systemic antibiotics (penicillins, macrolides, and third-generation cephalosporins), while the control group (n=60) did not undergo antibiotic treatment during the observation period. Diagnosis of aphthous stomatitis was based on clinical criteria, including visual examination of oral lesions and patient-reported symptoms.

Results. Aphthous stomatitis was diagnosed in 23 children (38.3%) from the antibiotic group, compared to only 7 children (11.6%) in the control group, with a statistically significant difference ($p < 0.01$). Among various antibiotics, third-generation cephalosporins showed the highest association with the occurrence of lesions. The risk was notably elevated in children treated with antibiotics for more than 7 consecutive days. Children under the age of 5 demonstrated a higher frequency of lesions, which may reflect age-related immaturity of the mucosal immune response.

Conclusion. The findings indicate a significant association between antibiotic therapy and the development of aphthous stomatitis in pediatric patients. Preventive measures—such as probiotic supplementation, regular oral hygiene practices, and close monitoring of the oral mucosa—should be considered when prescribing antibiotics to children.

References

1. Volkov I.K., Reznikov A.G. Aphthous stomatitis in children: pathogenesis, diagnosis and treatment. Russian Journal of Pediatric Dentistry. 2021;3:25–31.
2. World Health Organization. Guidelines for Antibiotic Use in Children. Geneva: WHO;

2017.

3. 3. Ivanov S.V., Nikitina O.V. The effect of antibiotics on the oral microbiome in pediatric patients. *Pediatrics*. 2020;99(2):45–49.
4. 4. Scully C., Shotts R. Aphthous and other oral ulcers. *BMJ*. 2000;321(7269):162–165.
5. 5. Preeti L, Magesh K, Rajkumar K, Karthik R. Recurrent aphthous stomatitis. *J Oral Maxillofac Pathol*. 2011;15(3):252–256.
6. 6. Porter SR, Scully C. Aphthous ulcers (recurrent). *Clin Evid*. 2005;14:1706–1715.