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IMPROVEMENT OF TREATMENT AND PREVENTION OF COMPLICATIONS OF ABSCESSES AND PHLEGMONS IN THE MAXILLOFACIAL REGION IN CHILDREN

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Annotation

Abscesses and phlegmons in the maxillofacial region are among the most serious purulent-inflammatory diseases encountered in pediatric patients. Due to anatomical and immunological features of children's bodies, these infections tend to spread rapidly and lead to severe complications if not diagnosed and treated promptly. This study focuses on improving the diagnostic and therapeutic approaches to managing maxillofacial abscesses and phlegmons in children. It also explores preventive strategies to reduce the incidence of complications. Based on clinical observations, a set of optimized treatment protocols has been developed, combining conservative and surgical methods, as well as postoperative care. The study emphasizes the importance of early intervention, multidisciplinary collaboration, and individualized treatment planning for effective outcomes.

Keywords: Children, Abscess, Phlegmon, Maxillofacial region, Complications, Treatment, Prevention, Pediatric surgery, Inflammation, Oral infections

Materials and Methods:

The research was conducted at a pediatric maxillofacial surgery department, where 78 patients aged 3 to 14 years with diagnosed abscesses and phlegmons of the face and oral region were observed over a period of 24 months. Clinical diagnosis was supported by laboratory tests, ultrasound imaging, and contrast-enhanced CT scans when necessary. Treatment strategies included empirical and targeted antibiotic therapy, incision and drainage procedures, and supportive care such as fluid therapy

and immune support. Patients were monitored for the development of complications such as cellulitis, osteomyelitis, and sepsis. Data analysis was performed using statistical methods to assess the efficacy of the modified treatment protocols.

Conclusion:

The findings of the study demonstrate that early diagnosis and timely initiation of a combined treatment approach significantly reduce the risk of complications in pediatric patients with maxillofacial abscesses and phlegmons. The use of standardized protocols, incorporating both medical and surgical interventions, led to faster recovery and lower rates of recurrence. Preventive measures, including proper oral hygiene education and routine dental check-ups, also played a crucial role in decreasing the incidence of such infections. The proposed treatment model can be recommended for wider implementation in pediatric surgical practice.

REFERENCES

1. Aliev, Z.U. (2012). Regional features of the prevalence of dentoalveolar and maxillofacial anomalies in children. Bulletin of Problems in Biology and Medicine, 2(2), 237–240.
2. Arzumanyan, A.G., & Fomina, A.V. (2019). Analysis of the prevalence and structure of dentoalveolar anomalies among school-aged children. Bulletin of New Medical Technologies (Tula), 26(3), 5–8.
3. Bragin, A.V., et al. (2008). Ontogenetic assessment of general mechanisms of body resistance to dentoalveolar system pathologies. Russian Dental Journal, 5, 23–27.
4. Gazhva, S.I., Zyzov, D.M., Shestopalov, S.I., & Kasumov, N.S. (2015). Prevalence of temporomandibular joint pathology in patients with partial tooth loss. Modern Problems of Science and Education, (6).
5. Dolgaev, A.A. (2008). Comprehensive diagnosis of occlusal disorders in dental arches of patients with temporomandibular joint pathology. Bulletin of New Medical Technologies, 2, 80.