II. Pediatric Rhinosinusitis - strategy and management

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Introduction: Pediatric rhinosinusitis is the inflammation of the mucous membranes of nose and paranasal sinuses. The immunological function of the mucosa and genetic factors play a role in the development of disease in the pediatric upper airway tract, especially due to the constantly changing anatomy in this growth phase. Though not life threatening, it profoundly affects child's school performance and sleep pattern. Quality of life in children is very important for their healthy start in their life and for their normal physiological development.

Method: 5–13% of upper respiratory tract infections in children complicate into acute rhinosinusitis. Disease description of the nose and nasal sinuses due to mid-facial growth must also take developmental age differences (newborn, toddler, preschool and school age) into account. Epidemiological examinations and evidence based studies are often lacking in the pediatric population. Following the EPOS2020 we have to update our guidelines, including sinus microbiome and immunodeficiency in children. The allergic rhinitis is also a factor of morbidity in the pediatric population. The main problems are pediatric chronic rhinosinusitis and their management and treatment.

Results: If we have symptoms of acute pediatric rhinosinusitis such as: nasal obstruction and/or nasal secretion, headache, facial pain, coughing then we have to follow the recommendations in EPOS2020 guidelines and the conservative treatment is effective except in cases when we have complications. The staged therapeutic concept is followed in PCRS based on conservative and surgical methods. Both therapeutic methods have not been well examined in comparison to adults. The medical therapy includes antibiotics, use of glucocorticoids (topical and systemic – very carefully), as well as the use of nasal irrigation. The surgical therapy is adenoidectomy (based on the assumption that adenoids are a reservoir for bacteria) ± FESS (functional endoscopic sinus surgery/balloon sinuplasty), but the anatomy in children is imperfect.

Conclusion: Quality of life in children is very important for their healthy start in their life and for their normal physiological development and that’s why we as otorhinolaryngologists have to construct our best strategy for management and treatment of pediatric rhinosinusitis. Our approach should be individual according to age, immunity, genetic predispositions, etc. in the childhood.

Curriculum Vitae

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