

Complicated rhinosinusitis in children - incidence, diagnosis and treatment with focus on surgical intervention

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Introduction: Most healthy children recover from acute bacterial rhinosinusitis (ABRS) without antibiotics. In rare cases ABRS can cause severe complications that requires admission, intravenous antibiotics and sometimes surgery. The aims are to describe the incidence of complicated ABRS in children, the diagnostics and treatment of these patients with focus on those undergoing surgery in Halland county.

Methods: A retrospective observational study with pediatric patients (<18 years) who have been admitted due to complicated ABRS during the period August 2008 to December 2021 in Halland Hospital, Halmstad.

Results: There were 97 admissions in 94 patients due to complicated ABRS. The mean annual incidence was 10.4 admissions per 100 000 children. 15% of the children had severe ABRS related complications, where orbital complications were most common. 12% were in need of surgery in addition to intravenous antibiotics to treat the complications. Patients undergoing surgery were admitted for twice as long in comparison with the non-surgical patients. Endoscopic sinus surgery was the most frequent surgical method used. A higher percentage of Streptococci and H. influenzae were found in the cultures of the surgical group.

Conclusion: The annual admission incidence in Region Halland is low compared to other study cohorts. Males and older children tended to have more complications and 15% of the study population had a complication related to severe ABRS. Endoscopic sinus surgery and open surgery are effective in treating these severe complications, making surgical intervention an important addition to antibiotics in the treatment of this patient group.