

# ANATOMIC VARIATIONS OF THE SINUSES IN CHILDREN WITH CHRONIC SINUSITIS

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## Objective

To assess the prevalence of the anatomic variations of the lateral nasal wall and the association of these variations with chronic sinusitis in pediatric patients.

## Methods

Computed tomography scans of patients with CRS eligible for sinus surgery were analyzed regarding the presence of anatomical differences of the lateral nasal wall.

## Results

Seventy-three children diagnosed with chronic sinusitis were included in the study (aged from 5 to 17 years, mean  $13 \pm 2.8$  years). The most frequent anatomical difference of the lateral nasal wall was the agger nasi cell, observed in 30 (41.1%) cases. The concha bullosa was found in 20 (27.4%) cases. The Onodi cell was present in 12 (17.6%) cases. The infraorbital Haller cell was found in 11 (15.1%) cases. Deviation of the nasal septum referred to 34 (46.6%) cases. In 11 (15.1%) patients no anomaly in the anatomical structure of the nasal lateral wall was recorded. Maxillary sinusitis was the most common sinus infection, followed by the ethmoidal, sphenoidal, and frontal sinusitis in that order. A statistical analysis revealed a positive correlation between the presence of the agger nasi cell and frontal sinusitis.

## Conclusions

Anatomic variations in the lateral nasal wall are common in children. Agger nasi cell favours the development of chronic inflammation in the lumen of the frontal sinus. The existence of remaining anatomical variants in the structure of the nasal cavity lateral wall is not associated with an enhancement of inflammatory lesions in the paranasal sinuses.

