

## THE USE OF ACOUSTIC RHINOMETRY AND RHINOMANOMETRY IN THE EVALUATION OF NASAL RESPIRATOR ACT AT CHILDREN WITH CHRONIC RHINOSINUSITIS

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### Introduction

Functional tests - acoustic rhinometry and rhinomanometry, are objective methods for assessing nasal respiration. In this order of ideas, we set out to conduct research on the assessment of nasal permeability in children with chronic rhinosinusitis.

### Keywords

Chronic rhinosinusitis  
Acoustic rhinometry  
Rhinomanometry

### Purpose

Evaluation of the role of functional tests: acoustic rhinometry, rhinomanometry in the evaluation of respiratory act in patients with chronic rhinosinusitis.



### Material and methods

The study included 60 children with rhinosinusitis, aged 4-16 years. Of them, 36 are male and 24 are female. Group I constituted 20 children without nasal pathology, and group II children with rhinosinusitis. Through acoustic rhinometry we determined VCN, AST1 and AST2, and through rhinomanometry, we evaluated the summary volume and the total resistance to air flow

### Results

#### Acoustic rhinometry data in patients from the study group

Indices	Study group	Normal ranges
VCN	2,87 + 1,68	4,6 + 0,304
AST1	0,282+0,027	0,415 + 0,19
AST2	0,480 + 0,061	0,508 + 0,043

#### Rhinomanometry data in patients from the study group

Indices	Study group	Normal ranges
Volume summary (150 Pa) cm <sup>3</sup> / sec	518	564
Total resistance (150 Pa) Pa/ cm <sup>3</sup> /sec	0,48	0.37

### Conclusions

The results of the study show that the functional tests performed have an important diagnostic value in the evaluation of nasal architectonics and nasal respiratory act.