








Comparative analysis of nasal and lung function in nonasthmatic children and adolescents with chronic rhinitis

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RESUMEN

Introduction. Nasal obstruction (NO) is a cardinal chronic rhinitis (CR) symptom. There is a relationship between the degree of NO and bronchial obstruction in patients with rhinitis and asthma, an event not studied in individuals with rhinitis and without asthma. **Objectives.** To investigate the correlation between nasal and pulmonary function in children and adolescents with chronic allergic rhinitis (AR) and non-allergic rhinitis (NAR) without asthma and the correspondence between eosinophils in nasal secretion (NSEos) and nasal and pulmonary function in AR. **Population and methods.** Patients with AR and NAR, without asthma, were included. Nasal function was assessed peak nasal inspiratory flow (PNIF z-score) and pulmonary function by spirometry (z-score). NSEos counts were performed in patients with AR. Pearson's and Spearman's tests were used to evaluate the correlation between variables. A $p < 0.05$ was considered significant. **Results.** Seventy-seven patients (females $n = 37$) between 7 and 16 years of age were included. A positive correlation was found between PNIF with FEF25-75% and FEV1 in the total sample of patients ($r = 0.304$; $p = 0.007$) ($r = 0.293$; $p = 0.009$) and the subgroup with AR ($r = 0.351$; $p = 0.005$) ($r = 0.294$; $p = 0.020$), respectively. In 40 patients with AR, no correlation was found between NSEos (%) and PNIF ($r = -0.120$; $p = 0.462$) nor with FEF25-75% ($r = -0.157$; $p = 0.340$) or FEV1 ($r = 0.107$; $p = 0.511$). **Conclusion.** In children and adolescents with CR without asthma, PNIF correlated with FEF25-75% and FEV1, with greater strength in the AR subgroup. Still, no correlation was obtained between NSEos and nasal and pulmonary function.

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Artículo

**PALABRAS
CLAVE:**

Maximal midexpiratory flow rate. Nasal obstruction. Peak expiratory flow. Rhinitis. Spirometry.

TEMAS:

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