

EVALUATION OF LARYNGOPHARYNGEAL REFLUX IN PAEDIATRIC PATIENTS WITH ASTHMA USING PHARYNGEAL PH- MONITORING: THE IMPACT OF A NEW TECHNIQUE

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Objective: There is constant discussion about the association between asthma and gastroesophageal and/or laryngopharyngeal reflux. Pharyngeal pH-monitoring is a new technique that allows a physician to check whether reflux really crosses the upper oesophageal sphincter barrier. The aim of the study was to assess the prevalence of laryngopharyngeal reflux (LPR) in children with difficult-to-treat asthma.

Methods: This was an open, prospective study. All patients were asked to fill out a Reflux Symptoms Index questionnaire. In all children, 24-hour pharyngeal pH monitoring was performed using the Dx-pH Measurement System. LPR was diagnosed on the basis of abnormal values in the composite score (RYAN Score), according to the DeMeester criteria. To verify the hypothesis that the reflux is present in 56% to 68% of asthmatic patients, a sequential test was used.

Results: A total of 21 subjects (mean age of 12.74 years old) were enrolled in the study. Laryngopharyngeal reflux was diagnosed in 13 (61.9%) children. The prevalence of LPR was between 56% and 68%. No association was found between the diagnosis of reflux and anthropometric data, spirometry results, age of asthma diagnosis and total IgE level. There was a positive correlation between LPR diagnosis and the degree of asthma control (77% vs. 12.5% at the 4th step of asthma treatment, $p=0.0121$). LPR was more frequent in higher fluticasone dose users as compared with lower dose users ($p=0.01977$, $OR=17.27$) and in montelukast users as compared with nonusers ($p=0.0075$, $OR=19$). The mean Reflux Symptoms Index score was almost two times higher in patients with reflux as compared with those without reflux (13.2 vs. 6.75, respectively, $p=0.00337$).

Conclusion: The prevalence of laryngopharyngeal reflux in children with difficult-to-treat asthma is high (between 56% and 68%).