European Respiratory Society
Annual Congress 2012

Abstract Number: 4931

Publication Number: P4576

Abstract Group: 7.2. Paediatric Asthma and Allergy

Keyword 1: Asthma - diagnosis **Keyword 2:** Children **Keyword 3:** Comorbidities

Title: Evaluation of lung function in children with asthma and gastroesophageal reflux disease association

Dr. Ianos 31080 Adam ianos.adam@gmail.com MD [1], Prof. Svetlana 31081 Sciuca ssciuca@rambler.ru MD [1], Dr. Victor 31082 Rascov victor_rascov@yahoo.com MD [2] and Dr. Rodica 31083 Selevestru rodicaselevestru@yahoo.com MD [1]. [1] Pediatric, State Medical and Pharmaceutical University, Chisinau, Republic of Moldova, 2004 and [2] Endoscopy, Mather and Child Center, Chisinau, Republic of Moldova .

Body: The aim of study was to assess the lung function disorders using spirometric measurements in a group of children with asthma and gastroesophageal reflux disease (GERD) associated. Materials and methods. The study included 58 children with moderate asthma aged from 5 to 16 years. The main group entered 38 children with association of asthma with GERD; controls included 20 GERD-free asthmatic children. Results. Analysis of the mean FVC values showed restrictive character of lung function changes in both groups that partially develop in children with long-term asthma: 64.0±2.4% in main group comparing with 69.1±2.5% in controls ($p>0.05$). Obstructive type changes differed between study groups and were characterized by decreased levels of lung function variables (FVC, FEV1, PEF and MEF25-75): FEV1 in children from the first group was significantly lower comparing with controls (61.7±2.6% vs. 72.4±2.1%, $p<0.01$), also PEF (46.6±2.5% vs. 56.0±3.3% in controls, $p<0.05$) and MEF25-75 (58.3±3.8% vs. 71.0±3.4%, respectively, $p<0.05$). Noticeably, significantly more expressed obstructive changes of distal airways and lung function variables were observed in children with associated asthma and GERD: 56.7±2.9% vs. 67.7±3.2% in controls for MEF75 ($p<0.05$), 59.9±3.9% vs. 75.8±3.6% for MEF50 ($p<0.01$) and 68.8±5.6% vs. 87.9±6.2% for MEF25 ($p<0.05$). Conclusions. Analysis of spirometric variables denotes more severe obstructive changes of lung function in children with association of asthma and GERD, that is showed by lower values of FEV1, PEF, MEF25-75, MEF75 and MEF25, comparing with asthmatic children who are GERD-free.