Title: Loose cough as sign of hyper secretion and inflammation in airways in relation to smoking index

Body: Cough may be considered as a symptom of disease, an indicator of environmental pollution. In addition, the subject may produce cough through voluntary control. The aim of this study was to determine the quality and humidity of voluntary cough as a sign of inflammatory bronchial alterations leading to hyper secretion in patients chronic obstructive bronchitis (COB) in relation to “Smoking Index” (years x cigarettes per day). Evaluation of lung function included clinical examination, electrocardiogram, estimation of blood, urine and function of the lung. The diagnosis of a disease as a basis for cough can be established with measurements of indirect tests (forced expiratory flow in first second (FEV1), maximal expiratory flow at 25% and 50% of FVC (MEF 25%FVC, MEF 50% FVC), and direct tests by measurement of airway resistance to flow. The results presented in this study were done on 147 patients with COB. The control groups consisted 132 subjects, and none of these subjects had symptoms or a history of pulmonary or cardiac diseases. Beside the questionnaire MRC, there was obligation to each subject to perform the test of cough, which is established on the base that in healthy subjects with normal bronchial mucosa provoked voluntary cough is dry, while in patients with inflammation in bronchial mucosa, the cough is humid assessed by auscultation. In smokers with COB the presence of chronic productive cough was in a positive correlation with increase of “Smoking Index”. In smokers with COB were negative correlation between “Smoking Index” and positive test of humid cough. Increase of “Smoking Index” was followed with decrease of the incidence of humid cough in patients with COB.