



NGF (nerve growth factor) inhibitors (fasinumab, tanezumab and fulranumab) have been tried in OA and have shown promising results in terms of pain relief and improved functional capacity. Nevertheless, their further investigation seemed controversial, so they are regarded as treatment option in exclusive OA cases by FDA. Nanotubes, magnetic nanoparticles, and other nanotechnology-based drug and gene delivery systems may be used for targeting molecular pathways and pathogenic mechanisms involved in OA development. Nanotechnology platforms may be combined with cell, gene, and biological therapies for the development of a new generation of future OA therapeutics.

Nesterovska O.A.

**COMPARATIVE CLINICAL AND FUNCTIONAL PROFILE OF PATIENTS WITH
COMORBID ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE**

*Department of Propedeutics of Internal Medicine
Bukovinian State Medical University*

The aim is to compare clinical and functional characteristics of patients with coexistence of asthma and chronic obstructive pulmonary disease.

The study population consisted of 30 patients defined as asthma-COPD overlap (ACO). Spirometry, 6-minute walk distance (6MWD), asthma-control test (ACT) and COPD Assessment Test (CAT) were evaluated. Measurements of blood eosinophils, total IgE levels and high-sensitivity C-reactive protein (hs-CRP) were done.

Among patients who fulfilled the ACO diagnostic criteria, there were 23 individuals (Group I) with persistent airflow limitation, reported asthma documentation before 40 years of age, 17 of them were current or former smokers and 11 patients were reported to be exposed to air pollution. 18 patients (78,3%) were in amoderate and severe persistent group and 5 patients (21,7%) were in the uncontrolled group according to ACT questionnaire.

Other 17 individuals (Group II) –patients with previous diagnosis of COPD, who developed respiratory symptoms (dyspnea, cough, sputum production and wheezing) above the age of 40 years, were found to have new adult-onset asthma. All of them were current or former smokers. Among these patients there were 4 with high degree of reversibility of airflow limitation and 15 - with blood eosinophil count higher than 2% and 200 cell/ml. 14 patients were reported to have frequent (2-4 times per year) exacerbations due to respiratory infection.

Peripheral blood eosinophils and serum IgE levels were 1,5 and 2,7 times higher ($p < 0,05$) among Group II subjects. FEV1 was higher in Group I by 3,9% than in Group II. The COPD Assessment Test score was higher in Group II as compared with Group I, but no correlation between CAT and FEV1 was found. There was no difference in hs-CRP level between groups and hs-CRP did not correlate with spirometry.

ACO is a heterogeneous disorder, which include patients with confirmed asthma, who are current or former smokers and then develop COPD features (chronic productive cough, exertion dyspnea and persistent FEV1/FVC $< 0,7$) and patients with COPD, who developed adult-onset asthma, eosinophilic inflammation, atopic disposition and/or high degree of reversibility of airflow limitation. Further research is needed to understand different patterns of lung inflammation and search for new possible diagnostic and therapeutic measures in patients with comorbid asthma and COPD.

Prysyazhnyuk V.P.

**ECHOCARDIOGRAPHIC FEATURES IN NON-ALCOHOLIC FATTY LIVER DISEASE
PATIENTS WITH DIFFERENT POLYMORPHIC VARIANTS OF DELETION
POLYMORPHISM OF THE GLUTATHIONE-S-TRANSFERASE M1 GENE**

*Department of Propedeutics of Internal Medicine
Bukovinian State Medical University*

Epidemiological studies indicate a higher incidence of adverse cardiovascular events in patients with non-alcoholic fatty liver disease (NAFLD) as compared to the general population.