

Researchers have confirmed one of the mechanisms of the arginase enzyme action, which produces a favorable environment for fibroblast and collagen production. L-arginine has exhibited protective effects in spinal cord injury in animals and in cortical impact injury in rats. In another study, exogenous L-arginine resulted in decreased hepatic ischemia/reperfusion injury.

L-ornithine metabolizes to form L-arginine and assists in the production of urea. This increases the body's ability to eliminate waste-products. L-ornithine and L-arginine work together synergistically to increase protein synthesis and, ultimately, muscle growth. This aminoacid is necessary for metabolic functions and detoxification purposes. It also contributes to release of HGH by the pituitary gland. L-ornithine is also used to assist in liver and gallbladder cleansing because it helps to produce urea that is used to flush toxic substances out of the liver. Because of the detoxification properties of the aminoacid it is thought to decrease the incidence of gallstones and liver toxins.

The usage of L-ornithine - L-arginine complex for toxic hepatitis treatment is considered to be a new and effective step in the development of modern hepatothology.

Key words: liver, toxic hepatitis, L-arginine, L-ornithine.

CLINICAL PECULIARITIES OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE DEPENDING ON GENDER OF THE PATIENTS

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Introduction: The problem of chronic obstructive pulmonary disease (COPD) is important in the most of countries, despite of numerous anti-smoking campaigns. If in previous decades, morbidity and mortality from COPD among men was significantly higher comparing to women, in recent years these indicators became practically equal in patients of both sexes, moreover, in some countries they dominate in women. According to the worldwide statistics, nowadays COPD kills more women than breast and lung cancers that do together. Therefore, there is a need to research the gender peculiarities of clinical course of COPD.

Materials and methods: The study was conducted on 42 men and women who are smokers and have COPD of the third stage. Age, number of pack-years of smoking, presence of comorbidities and number of exacerbations of COPD during the previous year were considered. Forced expiratory volume in first second (FEV1), the distance in meters, that the patient may walk for 6 minutes, severity of dyspnea by MMRC scale, body mass index (BMI) were assessed in all patients.

Results: Among the patients with COPD the women were younger than men (respectively, 56 and 67 years, $p < 0.05$), they smoked less (respectively, 37 and 58 pack-years, $p < 0.05$), had lower BMI (respectively, 25 and 28, $p < 0.05$), more exacerbations during the previous year (respectively, 1 and 0, $p < 0.05$) and fewer comorbidities. Gender differences in FEV1 were not found. At the same time women with COPD were less tolerant to physical exertion (they could walk for 6 min 94% of the necessary distance, while the males – 102%, $p = 0.05$) and developed more significant dyspnea by MMRC scale (respectively, 3.5 and 2.2, $p < 0.05$).

Conclusions: There are some sex differences in the development and clinical course of COPD, which are caused, apparently, by specific neurohumoral regulation of bronchopulmonary system functions, hormonal influence on the metabolism of tobacco smoke and by different severity of oxidative stress that damages the bronchopulmonary tissue. Further study of sexual peculiarities of COPD may improve the effectiveness of treatment of this widespread disease.