

## Materials of Conferences

**CLINICAL ASPECTS OF PNEUMOCONIOSIS  
AND CHRONIC OBSTRUCTIVE LUNGS  
DISEASE (COLD) AT ELDERLY AND SENILE  
AGE**

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Dust lungs diseases are one of most widespread forms of professional pathology, representing today medical and social problem. In spite of the irreversibility of the development of the pneumoconiosis and chronic obstructive lungs disease, there is a number of patients having sufficient everyday activity functional level of the respiratory system to get elderly and senile age.

The purpose of the investigation is to reveal factors providing the length of elderly and senile age patients life on the basis of the data about the prevalence and character of clinical evidence of professional pathology of lungs and analysis of clinical history.

In 2006-2007 in Kursk professional pathology center 276 people with the professional disease of the respiratory system were dispensarized. They included 120 patients (43,5%) of senior age. The group of gerontal patients consisted of 108 patients of elderly age, 12 – of senile age. The primary diagnosis was delivered for them in 1975-1985. They were foundry department workers, iron ore quarry workers, coal mine workers who had been working in dustiness from 10 to 17 years. The clinical aspect of pneumoconiosis primary diagnosis corresponded to Ips/ps on X-ray examination, the irritative bronchitis characterized with the light obstructive disturbances. At present time variants of professional disease of bronchial and lungs system in the group of gerontal patients are COLD- at 62 % of patients, COLD combined with pneumoconiosis - with 19,2 % of siked. It should be mentioned that combination of the two professional diagnosis was verified with 50% respondents of the senile age. Clinical and X-ray picture of pneumoconiosis corresponded to A,3r,3t,em/A,3q,3t, em. Clinical and functional disturbances of the COLD were at the rate of II-III stage. Chronic pulmonary heart with elderly patients was formed in 40,8% of the events, and with 50% of the senile patients.

At the analysis of clinical history of all the patients with the professional lungs pathology it is possible to select some factors, provided longer length of geront's lives, in spite of the evident development of pneumoconiosis and COLD on the background of the lungs involution. These are early disease diagnosis, rational job with the conservation of labor motivation and social activity, unceasing and long medical rehabilitation on the base of profpatology center recommendations, high social patients responsibility in re-

spect of the conservation of their own health (changing lifestyle, giving up of smoking, compulsory observance recommendation of the physician, etc.)

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**EXPRESSION OF HLA-DRA,-DMA AND CIITA  
GENES IN BURN INJURY PATIENTS WITH  
SYSTEMIC INFLAMMATION RESPONSE  
SYNDROME**

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Severe thermal injury causes immune dysfunctions and frequently accompanied by developing of septic conditions, which characterized by decreased monocyte human leukocyte antigen-DR measurements.

Expression of HLA-DR on immune cells is regulated by specific genes. HLA-DM and CIITA genes have a strong influence on molecules of adaptive immune response. It is known, that genes of DM locus provides correct transport of HLA II molecules from endoplasmic reticulum and stable connection alpha-beta heterodimers with specific peptides. CIITA (class II transactivator) controls cellular specificity and expression of MHC II genes.

**The aim** of our research is to estimate expression of HLA-DRA,-DMA and CIITA genes in burn injury patients with SIRS-III (Systemic Inflammation Response Syndrome).

**Patients and methods:** Samples from 8 patients with burn injury and 10 healthy donors were investigated.

Expression of messenger RNA(mRNA) HLA-DRA, -DMA and CIITA genes was measured by quantitative polymerase chain reaction in real-time with reverse transcription (qRT-PCR real-time) using specific primers (Pachot A, 2005). Comparisons between groups were made using a nonparametric Mann-Whitney U test.

**Results:** We observed significant differences ( $p < 0,05$ ) of genes (HLA-DRA, -DMA, CIITA) expression levels from patients and controls. Patients with severe burn injury had significant lower levels of genes expression in comparison with healthy donors. As genes HLA-DMA and CIITA have a strong influence on immune response (they are essential to ensure MHC II protein structure, transport, and peptide loading), their low expression in patients with severe thermal injury with SIRS-III could lead to deficient expression HLA-DR molecules on immune cells and