

### CLINICAL PECULIARITIES OF OUT-HOSPITAL PNEUMONIA AMONG ELDERLY PATIENTS

Kudryasheva I.A., Polunina O.S., Galimzyanov H.M.  
*SEI HPE Astrakhan State Medical Academy, RHP*

Out-hospital pneumonia (OHP) is one of the most distributed diseases of respiratory organs. Significant factor of risk development is the elderly age.

The aim of investigation is to analyse and clear up the clinical peculiarities of course of out-hospital pneumonia among elderly patients.

Material and methods. There were observed 229 patients of elderly age (60-74) with OHP. The patients with severe damage of internal organs were not included in the group of investigation. The verification of diagnosis was made on the base of clinicolaboratory methods of investigation, according to diagnostic standards in treating patients with pneumonia. Dynamic observation, complex laboratory and instrumental-functional investigation were done in conditions of curative-prophylactic institutions of Astrakhan.

Results of investigation. The bacteriologic investigation gave the possibility to find etiologic factor of OHP in all 229 patients. Identified excitors were distributed in the following type: Streptococcus pneumoniae – 35,2%, Haemophilus influenzae – 23,8%, Staphylococcus aureus – 4,8%, Enterobacteriaceae – 7,6%, association of gram-positive and gram-negative flora in 28,1% cases. Given results were coordinated with literary data about etiology of pneumonia in persons of elderly age groups. Pneumonia was confirmed in all patients roentgen logically. 120 patients showed low lobe pneumonia, 75 right side, 39 – left side localization. 70 patients showed upper lobe right side pneumonia, 35 – by-side low lobe pneumonia.

The analysis of course of disease in 229 observed patients of elderly age with OHP found out the clinical peculiarities of the following types: slight expression of symptoms, difficulty in determination of nature during percussion of parts in lungs, frequent absence of acute onset of disease, frequency and expression of disturbances of central nervous system (mixture of consciousness, slow reaction, disorientation), weak general condition, decrease of physical activity, losing of capabilities of self-service, appearance to the first front of symptoms in superficial diseases in clinical picture, prolong resorption of lung infiltration, difficulties in making differentiated diagnosis between first and second character of pneumonia. «Gold standard» in diagnostics of pneumonia: fever, cough, sputum, leucocytosis, lung infiltration, all of them were found out in 47% of cases among elderly patients, it was lower than in patients of young age (difference is significant statistically, 95% of proving). Among patients of elderly age the OHP was in 37,4%

in patients with elderly age. Bed-day in patients of elderly age was 24,4 days, in young persons – 15,2/

Received data showed the necessity of careful care to verification of diagnosis in case with OHP in persons of elderly age.

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### APOPTOSIS REGULATION IN SINCYTIOTROPHBLAST AT HERPETIC LESION

Lutsenko M.T., Andriyevskaya I.A.  
*Far Eastern Research Center of Respiration  
Physiology and Pathology  
Blagoveschensk, Russia*

The activity change of syncytiotrophoblast nuclei apoptosis, which is under the control of apoptosis regulators sAPO-1 and Bcl-2 and proinflammatory cytokine TNF $\alpha$ , is a leading pathogenetic phenomenon at a herpetic lesion. A poor quantity of research on the given problem has defined the purpose of the presented work, which consisted in the syncytiotrophoblast nuclei apoptosis intensity and behavior appraisal depending on the herpetic infection aggressiveness and functional activity of the systems regulating the apoptosis.

20 mature placentas taken during the term birth process from practically healthy mothers - the control group, 30 - from the women with a severe form of the disease (HSV-1 antibody titer - 1:12800) and 20 - from the women with an average severity form of the disease (HSV-1 antibody titer - 1:6400) served as the test material for the study. To get the placental extract (villous chorion) the placental tissue washed from blood cells in the PBS solution was homogenized. The supernatant fluid was aliquoted and stored at -20 °C before the EIA was carried out. To detect the sAPO-1, Bcl-2 and TNF $\alpha$  expression the “Bender Med Systems” (Austria) firm’s sets were used. The HSV-1 verification and the disease intensity were estimated on the IgG antibody titers’ dynamics in the peripheral blood with the help of standard test-systems of the “Vector-Best” firm (Novosibirsk). The morphologic detection of apoptosis was performed on paraffin sections of the uterine cake owing to the DNA fragments’ end marks according to the ISEL-method. The statistical data processing was performed by means of the computer program “Computer-aided periodic health examination” using the t-criterion of Student.

The carried out system analysis testified that in cases of severe form herpetic infection in the period of gestation a statistically authentic growth of the sAPO-

1 indexes in placental extracts up to  $1174,77 \pm 17,34$  pg/ml (in the control -  $514,8 \pm 8,05$  pg/ml;  $p < 0,001$ ) was registered. At the disease average severity the sAPO-1 level didn't exceed the values of  $963,3 \pm 12,72$  pg/ml ( $p < 0,001$ ). A simultaneous determination of the TNF $\alpha$  in placental extracts depending on the herpetic infection aggressiveness in the period of gestation illustrated a unidirectional growth of average indexes of the cytokine up to  $91,33 \pm 0,55$  pg/ml ( $p < 0,001$ ) and  $72,32 \pm 0,71$  pg/ml ( $p < 0,001$ ), accordingly, at the severe and average severity form of the disease (in the control -  $21,63 \pm 0,38$  pg/ml). Meanwhile, the Bcl-2 values in placental extracts at the herpetic lesion were of the multidirectional character. The severe course of the disease in the period of gestation was attended by the Bcl-2 level decrease up to  $28,16 \pm 0,60$  ng/ml ( $p < 0,001$ ), whereas at the average intensity of the disease the protein indexes increased up to  $46,87 \pm 0,86$  ng/ml (in the control -  $8,73 \pm 0,32$  ng/ml;  $p < 0,001$ ). Together with that the syncytiotrophoblast nuclei apoptosis intensity was evaluated. The antigenic load increase associated with  $4,0 \pm 0,06\%$  of apoptosis nuclei, and an average level of antibodies conformed to  $2,5 \pm 0,04\%$  (in the control -  $1 \pm 0,07\%$ ;  $p < 0,001$ ). The represented data allow concluding that the formation of resistance to the Fas-dependent apoptosis mediated by the Fas/FasL system is indicative of the syncytiotrophoblast in conditions of a herpetic lesion. Moreover, the sAPO-1 hyperexpression had no affect on the apoptosis occurrence. Maybe, the TNF $\alpha$  expression increase at the simultaneous weakening of the Bcl-2 protective action has become one of the probable causes of the syncytiotrophoblast nuclei apoptosis induction at the herpetic infection.

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#### EARLY DETECTION OF ARTERIAL REMODELING IN ARTERIAL HYPERTENSION

Mineyeva E.E., Gvozdenko T.A.

*Research Institute for medical climatology and  
rehabilitation treatment, Siberian Branch of the  
Russian Academy of Medical Sciences  
Vladivostok, Russia*

Scientists' attention is being increasingly focused on the issue of vascular membrane condition in arterial hypertension (AH), with a view to preventing vascular diseases. Consequently, research in this field is currently a topical issue. Since noninvasive methods have been developed, a number of studies came to rather contradictory results on arterial elasticity in AH.

The aim of this research was to assess arterial elasticity during AH development, with the aim of early detection of vascular remodeling.

We examined 56 men, aged  $38,7 \pm 2,6$ . The 1<sup>st</sup> group consisted of 17 persons with high normal blood pressure – prehypertension, the 2<sup>nd</sup> group counted 24 patents with essential stage 1 hypertension, who did not receive any antihypertensive therapy. A control group included 15 healthy young men of the same age. The vascular elasticity was measured by the pulse wave velocity (PWV) method, using sphygmograph appliance «Polispektr-12» (Company «Neurosoft», Ivanovo). The data were statistically treated by the methods of descriptive statistics and software program «Statistica 6.0».

The research results showed a reliable increase of PWV for both muscular and elastic arteries in the study groups. Elasticity in the muscular arteries changed more intensively. For example, in the 1<sup>st</sup> group the muscular PWV doubled, in the 2<sup>nd</sup> group – increased by 36% ( $p < 0,05$ ) in comparison with the control group. PWV in the elastic arteries also rose, according to the hypertension stage: elastic PWV increased by 22% in the 1<sup>st</sup> group and by 24% ( $p < 0,05$ ) in the 2<sup>nd</sup> group. Expected unfavorable increase of the elastic PWV by more than 12 mps, which is an independent risk factor for cardiovascular diseases, was found at 9% of the patients: 1 person in the 1<sup>st</sup> group and 4 men in the 2<sup>nd</sup> group.

To sum up, signs of arterial remodeling appear at the prehypertension stage and 1 stage arterial hypertension. Measuring PWV at early stages of AH let detect a risk group in the population as early as possible.

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#### PATHOLOGIC SITUATIONS AIDING DEVELOPMENT OF RADICULOMYELOISCHEMIC DISORDERS AT LUMBAR OSTEOCHONDROSIS

Oleynik A.D.

*Regional Clinical Hospital of Josaphat Sanctifier  
Belgorod, Russia*

At disk herniation there is a range of factors promoting lumbar osteochondrosis clinical signs' manifestation and, especially, circulatory disturbances in spinal cord and spinal roots. Their timely diagnostics and release, no doubt, create favourable conditions for the given vertebral column pathology treatment improvement.

With this objective in view we have carried out a detailed retrospective analysis of 1848 lumbar osteochondrosis patients' integrated survey and treatment data.