

Merekina E.S.¹, Logvinenko N.I.²

Branch № 1 of the Federal State Establishment (FSE) “321 District Military Clinical Hospital (DMCH)” of the Ministry of Defense (MD) of the Russian Federation in Novosibirsk, Novosibirsk¹, State Institution “Research Institute of Therapy of Siberian department of RAMS”²

Clinical Manifestations of Pneumonia in Servicemen.

Abstract. It was analysed case histories of 1205 servicemen at the age of 16 to 57 with community-acquired pneumonia being treated in the pulmonological department of the Branch № 1 of the Federal State Establishment (FSE) “321 District Military Clinical Hospital (DMCH)” of the Ministry of Defense (MD) of the Russian Federation in Novosibirsk in 2003-2005. Productive cough, painful and asthenic syndromes predominated in the clinical picture of servicemen with community-acquired pneumonia; normal and low grade fever of the body were registered more often. In the majority of the examined patients changes in the percussion sound weren't revealed, on auscultation with the same frequency it was auscultated vesicular, weakened and hard respiration; particularly in the half of cases râles were absent, in their presence there were moist râles and crepitation.

Key words: *pneumonia, servicemen, clinical manifestations*

Introduction. Community-acquired pneumonia is one of the most actual problems for the medical services of the armed forces of the Russian Federation due to a high degree of the morbidity in servicemen, beginnings of the epidemic flare-ups, disturbances in the labor activity and decreasing of fighting efficiency. [2]

According to literature findings community-acquired pneumonia in persons of young age occurs more often in the mild form (72,5%), medium-weight course occurs in 21.5 % of cases and only in 6 % there is a severe course. [1] Usually the onset of disease is acute, rarely – gradual, sometimes the development of pneumonia is preceded with an attack of acute respiratory viral infection or tracheobronchitis. [2]

Various combinations of bronchial and extrapulmonary symptoms are covered to the principal clinical manifestations of community-acquired pneumonia. The most common manifestations of bronchopulmonary symptomatology are cough, breathlessness, pain in the chest, sputum that may be mucous, mucopurulent, sometimes containing blood. Characteristic extrapulmonary symptoms are hypotension, weakness, tachycardia, chill, myalgia, fever, mental confusion, meningism, changes in indexes of peripheral blood. [5,6,7].

According to literature findings in the clinical picture of the disease in servicemen syndromes of bronchitis, intoxication and general inflammatory changes predominate. But in the period of the height of the disease in 41% of the patient there is no temperature elevation of the body. According to literature the syndrome of pleura irritation is revealed more then in the half of the patients. [1] Presence or absence of this or that symptom, its intensity are determined on the one hand by the character of the causative agent, and on the other hand – by the condition of the local pulmonary protection and particularities of reaction of other systems of the organism (immune, system of hemostasis etc.) [7]. At once classical characteristic objective signs of pneumonia are dullness of the percussion sound over an affected part of the lung, local auscultated bronchial respiration, focus of sonorous finely vesicular râles or inspiratory crepitation, increase of bronhophony and vocal vibration, in some patients they may differ or be absent [3,4,5]. For the diagnosis of community-acquired pneumonia X-ray confirmation of the syndrome of lung infiltrate is obligatory. [3,5].

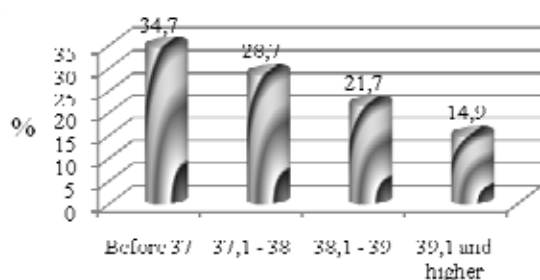
Purpose of research: to study clinical manifestations of pneumonia in servicemen.

Materials and Methods. It was analysed case histories of 1449 patients with community-acquired pneumonia being treated in the pulmonological department of the Branch № 1 of the FSE “321 DMCH” of the Ministry of Defense of the Russian Federation in Novosibirsk in 2003-2005.

1205 persons at the age of 16 to 57 were introduced in this study - (81/3%) from general number of treated patients (except pensioners, family members of servicemen, women of the contract service – 7% from general number of examined and servicemen in whose admission there were no X-ray signs of the syndrome of pulmonary infiltration – 9,8%).

Results of research.

In taking of complaints at the moment of admission to the hospital there was paying attention to: fever, asthenic syndrome, presence and character of cough, presence of the chest pain and breathlessness.



There was normal body temperature in the 34,7% of cases, fever from 37,1° to 38° in 28,7%, from 38,1° to 39° in 21,7% and 39,1° and higher in 14,9% respectively. (pic. 1)

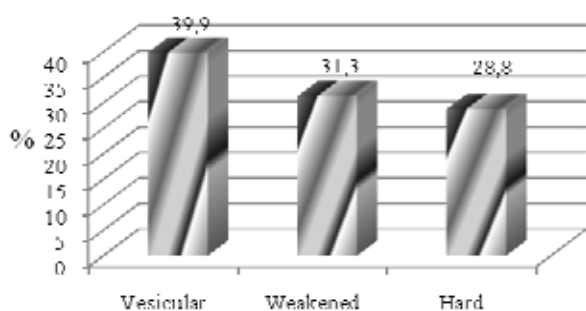
Picture 1. Rate and intensity of fever among examined patients.

Cough was absent in 6,5% of patients with community-acquired pneumonia, productive cough was registered in 73% and non-productive – in 20,5 %.

Pain syndrome was revealed in 58,3% of servicemen with community-acquired pneumonia, asthenic – in 65,3%. 17,6% of patients complained of the breathlessness.

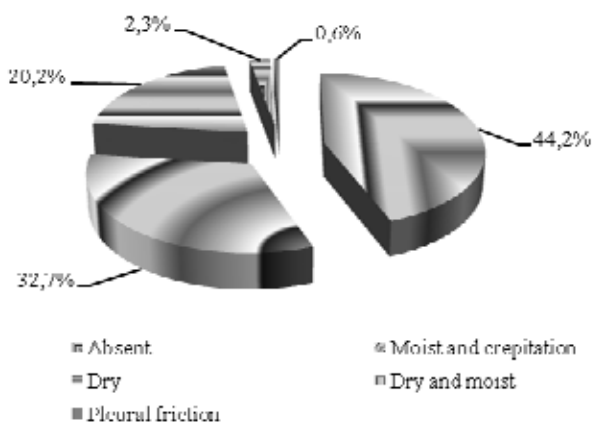
On objective study it was estimated the change of percussion sound, the character of respiration, the presence of râles, the rate of respiratory movements, the rate of cardiac contractions and the level of arterial pressure.

Percussion sound was not changed in 86,6 % of the patients, the shortening of the percussion sound was marked in 13,4% of cases.



Vesicular respiration was auscultated in 39,9% of cases, weakened – in 31,3% and hard – in 28,8%. (pic. 2)

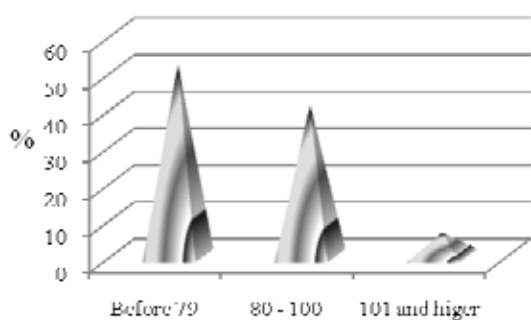
Picture 2. Type of respiration in examined patients.



On auscultation râles were not revealed in 44,2% of cases, moist râles and crepitation were marked in 32,7% of patients, dry – in 20,2%, combination of dry and moist râles in 2,3% and pleural friction was in 0,6%. (pic. 3)

Picture 3. Character of râles in examined patients.

The rate of respiratory movements in normal range was registered in 83,5% of cases, the rate of respiratory movements from 20 to 24 was in 12,9% and from 25 and higher – in 3,6% of patients.



Rate of cardiac contraction in normal limits was registered in 52,4% of patients with community-acquired pneumonia, 80-100 beats per minute – in 41,2% and 101 and higher – in 6,4% of patients. (pic. 4)

Picture. 4. Rate of cardiac contraction in examined patients on admission

Level of systolic arterial pressure in normal limits was 97,4% of cases and diastolic arterial pressure was 97,8%.

Conclusions: 1. In the clinical picture of community-acquired pneumonia in servicemen productive cough, pain and asthenic syndromes predominated, breathlessness was registered rarely.

2. Normal or lower grade fever were marked more often.

3. In the majority of the examined patients there were no changes in percussion sound, on auscultation with the same frequency there were vesicular, weakened and hard respiration, particularly in the half of all cases râles were absent, in case of there presence moist râles and crepitation predominated.

Literature:

1. Kazancev V.A. Particularities in the Course and Some Aspects of Pathogenic Therapy of Community-acquired Pneumonia in Persons of the Young Age / Kazancev V.A. – author's abstract.- St. Petersburg.- 2002.- 24 p.
2. Marin G.G. Organizing and Epidemiologic Aspects in the Prevention of Community - Acquired Pneumonia in Moscow Military District / G.G. Marin, O.I. Klochkov, V.D. Mosyagin // Military and medical journal. – 2008.- № 3.- P.33- 38.
3. Sinopalnikov A.I. Pneumonia / A.I. Sinopalnikov // Russian Medical News.-2004.- V. IX.- № 1.- P. 4-16.
4. Chuchalin A.G. Community-acquired Pneumonia in Adults: Practical Recommendations in Diagnostics, Treatment and Prevention / A.G. Chuchalin, A.I. Sinopalnikov, S.V. Yakovlev // Clinical Microbiology and Antimicrobial Chemotherapy. 2003.- V. 5.- № 3.- P. 198- 224.
5. Chuchalin A.G. Diagnostics and Treatment of Pneumonia from the Position of Demonstrative Medicine / A.G. Chuchalin, A.N. Tzoy, V.V. Arhipov // Consilium medicum. 2002.- V.4.- № 12.- P. 620 - 644.

6. http://www.rmj.ru/articles_2823.htm

7. http://www.rmj.ru/articles_3171.htm

Data on authors.

1. Merekina Ekaterina Sergeevna, therapist, pulmonologist the Branch № 1 of the Federal State Establishment (FSE) “321 District Military Clinical Hospital (DMCH)” of the Ministry of Defense (MD) of the Russian Federation in Novosibirsk. Contact information: mob. phon +7 9133775611; h. p. (383) 2671351; e-mail: scarlet-81@mail.ru
2. Logvinenko Nadejda Ivanovna, the doctor of medical sciences, professor of chair of therapy, hematology and transfusiology ФПК и ППВ ГОУ ВПО НГМУ. Contact information: mob. phon +7 9139268115; e-mail: nadejda-logvinenko@ya.ru.