PATHOGENIC FLORA WITH PNEUMOEMPHYEMA AND ITS SENSITIVITY TO ANTIBACTERIAL AGENTS

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Despite significant progress in pulmonology in last time, the problem of medical care for patients with nonspecific acute destruction of the lungs, accompanied by pneumoempyema, is one of the most difficult problems in pulmonology. The urgency of this issues caused by the high mortality, severity and duration. The growing number of patient’s young and middle-aged, sometimes socially advantaged and necessitated the search for new approaches to diagnosis and treatment of this disease [Eur. J. Cardiothorac. Surg. - 2004. - Vol.26. - P. 503-507.]. Important place in the development of pathogens pneumoempyema belongs causative agents. The species composition represented by different combinations of strict asporogenous anaerobes with gram-negative aerobic microbiota with the predominance of anaerobic component (Kolesov AP et al, 1985).

**Purpose of the work**: To determine the species composition of microflora by pneumoempyema and establish its sensitivity to antibacterial agents.

**Materials and Methods**: We examined 109 patients with pneumoempyema. Patients for the study were selected without any specific causes of pneumoempyema (tuberculosis, cancer, etc.). Material for bacteriological examinations was pleural effusion. It was obtained from the pleural cavity in the day of hospitalisation by puncture method. Crops were incubated for 18-20 hours at 37 ° C, determination of the sensitivity to antibiotics produced by disc - diffusion method.

**Results and Discussion**: In the analysis of the pleural fluid dominated Gram-positive bacteria, among which the most commonly seeded: *Streptococcus epidermidis, Streptococcus pneumoniae, Staphylococcus aureus*. Second place by the detection rate is occupied gram-negative bacteria, which are dominated *Pseudomonadaaerugenosa*, rarely - *Escherichia Coli, Enterobacter spp*. In some of the examined patients (10.1%) were identified the pathogenic fungi of the genus *Candida*. Pathogenic fungi encountered in association with other microorganisms (*Staphylococcus aureus, Streptococcus epidermidis, Pseudomonadaaerugenosa*), and independently.

Streptococci showed the greatest sensitivity to third-generation cephalosporins (ceftazidime) antibiotics, fluoroquinolones (gatifloxacin, levofloxacin); staphylococci - a combination of carbapenem and digidropeptidazainhibitor (thienam), combination of penicillin and β - lactamases inhibitor(klaforan), fluoroquinolones (ciprofloxacin), the causative agent of pulmonary infection *P. aeruginosa* - a combination of carbapenem and digidropeptidazainhibitor(thienam) , a combined preparation of third generation cephalosporins and inhibitor of β - lactamases.
Candida species were susceptible to amphotericin B, and not sensitive (just 27.3% of strains) to an imidazole derivatives. In 10 patients were found PseudomonaAeruginosa strains with multidrug-resistant.

Conclusions: According to de-escalation tactics, before the results of bacteriological tests for initial antibiotic therapy in patients with pneumoempyema can recommend the following antibiotic regimens:

1. Combined drug third generation of cephalosporins and inhibitor of β-lactamases or penicillin combined drug of penicillin and inhibitor β-lactamase + fluoroquinolones (gatifloxacin, levofloxacin) + amphotericin B.

2. Combined drug of penicillin and inhibitor β-lactamase + inhibitor drug carbapenem with digidropeptidazinhibitor + amphotericin B.

these combinations are most effective against pathogens, which we found by pneumoempyema, more than 96% founded microorganisms are sensitive to them.

References:


PREVENTION OF FOREST FIRES USING PERCOLATION THEORY

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Forest fires cause great damage to the ecosystem. Combustion products of organic substances provoke the occurrence of oncological pathologies in the person, diseases of the nervous, respiratory, and cardiovascular systems, cause