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Title: Etiological features of nosocomial pneumonia in neurosurgical intensive care unit

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Body: The purpose of work was to reveal the most typical pathogens of nosocomial pneumonia (NP) in neurosurgical intensive care unit (NICU) of Belgorod regional clinical hospital of St. Ioasaf. Material and methods. During 2012 sputum from patients with NP from NICU has been analyzed. 249 samples of biomaterial have been taken. Biomaterials of patients have been examined with a help of semi-automatic analyzer, growth mediums and tests in bacteriologic laboratory of our clinic. Results. In 57 (22.9%) cases the sputum was regarded as 'low-quality' (saliva and saprophytes were found in the samples). Among the rest of samples 163 were with positive microbial growth (84.9%) and 29 (15.1%) were without one. 186 strains of NP pathogens have been collected. 2 pathogens per sample of sputum were found in 23 cases. The main pathogens included as follows: P.aeruginosa (53 cases, 28.5 %), Kl. pneumoniae (38, 20.4%), S. aureus (18, 9,7 %), Acinetobacter (17, 9.1%), Enterobacteriaceae (10, 5.4%), Staphylococcus spp. (8, 4.3%), Streptococcus spp. (6, 3.2%), Candida alb. (6, 3.2%). The data on sensitivity of this microorganisms have been studied additionally. Conclusions. 1. NP pathogens most frequently found in the sputum in NICU were the following: P.aeruginosa and Kl. pneumoniae. 2. Samples without microbial growth collected in the research could be caused by the atypical microorganism or virus. Therefore the special methods of research should be applied and carried out. 3. The great number of low-quality samples have been revealed. Thus there is a necessity to increase the efficiency of sputum sampling in hospitals. 4. Up to 13.5% of NP are polymicrobial.