

Study of species spectrum of sepsis in newborns

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The aim of the research was to study specific structure of neonatal sepsis. The pathological material was obtained from 252 newborns with sepsis admitted to the Lugansk regional children hospital from 2000 till 2005, and inoculated to the commercial nutrient media. In general, 187 strains belonging to 19 species were isolated: 73,3 % - Gram-positive bacteria, 25,1 % - Gram-negative ones, 1,6 % - fungi of genus *Candida*. Bacteria were isolated in monoculture in 48,7 % of cases. Associations consisting of 2 microbes were registered in 70,7 % of cases, of 3 - in 22,4 %, of 4 and 5 ones - in 3,45 %. *Staphylococcus aureus* and *Staphylococcus epidermidis* (66 and 60 strains accordingly) were the most frequently identified Gram-positive bacteria. Only 1 strain of *Staphylococcus saccharolyticus* was identified in association with *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Escherichia coli* and *Fusobacterium mortiferum*. *Staphylococcus aureus* as the single agent was marked in 26 cases, other 40 strains of *Staphylococcus aureus* participated in associations. In 2 mixed cultures *Staphylococcus aureus* was combined with *Eggerthella lenta* and *Streptococcus anginosus*. *Staphylococcus epidermidis* in monoculture was isolated in 20 cases, other 40 strains were isolated in associations. In 3 newborns sepsis was initiated by association of *Staphylococcus epidermidis* and streptococci. *Streptococcus sanguis* was identified as the single agent at 1 newborn, and at 3 - as associant. *Streptococcus milleri* was isolated exclusively in mixed culture in association with staphylococci and enterobacteria. *Streptococcus pyogenes* was isolated from 2 newborns; and at 1 - *Streptococcus mitis* in combination with *Staphylococcus epidermidis* and *Streptococcus sanguis*. 18 strains were represented by *Escherichia coli* (in monoculture - at 2 newborns, other - in associations). *Fusobacterium necrogenes* was isolated from 6 newborns: at 1 in monoculture, at 5 - in association. *Fusobacterium mortiferum* was presented exclusively in association with other agents. *Enterobacter aerogenes* (6 strains) and *Enterobacter cloacae* (1 strain) were identified in mixed cultures. *Pseudomonas aeruginosa* as the single agent was isolated in 2 cases, in 3 cases - in association. *Proteus vulgaris* and *Proteus mirabilis* were isolated only once. *Moraxella lacunata*, *Morganella morganii* and *Acinetobacter anitratus* were isolated exclusively and obligatory in associations with staphylococci. *Candida albicans* were isolated from 3 newborns. Thus, species structure of neonatal sepsis is characterized by specific variety at domination of staphylococci.