Incidence and characterization of neonatal sepsis cases in a Colombian hospital during 2007–2008

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Background: The sepsis is an unacceptable but important cause of morbidity and mortality in newborns, for that is indispensable a precocious and specific diagnose, and an adequate antimicrobial treatment that permit to reduce these indices. In this study was estimated the incidence and characterized the cases of neonatal sepsis (NS) in a Colombian hospital.

Methods: A descriptive study was carried out. Were evaluated series blood cultures of neonates with suspicion of NS without previous antimicrobial therapy during a year. The isolates were identified by biochemistry techniques and the antimicrobial susceptibility was evaluated according to recommendations of CLSI. The isolated microorganisms were classified as etiological agents of late and early NS. The epidemiological and clinics variables were obtained from the clinic histories. The information was processes in the software Whonet 5.4 and Epi Info Version 3.4/2007.

Results: Were studied 50 patient suspicious, 14 (28%) were positive for NS. The more frequent etiological agent was Staphylococcus aureus (52%) which showed resistance to oxaciline in a 36,4%. The percentage of meticiline-resistant S. aureus (MRSA) was 31,8%. Epidemiologically most of the cases were classified as early NS (97,6%).

The majority of the mothers were greater of age, from rural zone, with low socioeconomic level. The main risk factors were premature membrane rupture > 18 hours of evolution (47,6%), chorioamnionitis and vaginosis (9,5%). In the newborn the principal risk factors were low weight (52,4%), premature gestational age (69%), masculine sex (66,7%) and regular general state (54,8%).

The subcostal retractions were the clinical signs prevailing; with diagnose of respiratory difficulty associate (28,6%). There was association significant statistically between the presence of NS and extended delivery work and RPM > 18 hours. The reasons of prevalence for presenting NS showed greater probability in the masculine newborn than in the feminine, as well as the born of mothers with IVU respect to the born of mothers without IVU.

Conclusion: Most of the cases of NS were caused by S. aureus, that additionally presented high percentages of antimicrobial resistance. For these reason the necessity of designing strategies to contain the dissemination of these bacteria in the institution.

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Epidemiological data of infectious disease for 10 years in PICU

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Background: This is a retrospective study to present the epidemiologic data of the infants hospitalized with infectious diseases in PICU during 1999–2008.

Methods: In this study are included 2128 infants from 1 month -14yrs. Admittance criteres are based in anamnetic data, clinic situation (valuation of vital signs). The data interpretation is made in report with the kind of infection, with the age, sex, place and mortality.

Results: 2128 hospitalized infants with infectious disease in PICU form 44.39% of all hospitalizations According to the kind of infection, the lower respiratory tract infections take the main place with 1086 cases (51.03%), infectious diarrhea with 459 cases (21.56%), central nervous system infections with 239 cases (11.23%), septic shock with 89 cases (4.18%), bacterial meningitis with 74 cases (3.47%), upper respiratory tract infections with 66 cases (3.1%), hyperacutse sepsis (meningocoxemia) with 47 cases(2.2%), leishmania with 19 cases (0.89%), heart infections (endocarditis, myocarditis, pericarditis) with 12 cases (0.56%), urosepsis with 10 cases (0.46%), skin infections (celulitis, dermatitis) with 10 cases (0.46%), pertussis with 6 cases(0.28%), varicella with 5 cases (0.23%), tuberculous meningitis with 3 cases (0.14%),tetanos with 2 cases (0.093%), salmonella typhi with 1 case (0.046%). According the age, hospitalized infants are fotmd by: 1 month-1 yrs with 1405 cases (66.02%), 1-5yrs with 425 cases (19.97%), 5-14 yrs with 298 cases (14.003%). According the sex predominate males with 1198 cases(56.3%) and females with 930 cases(43.7%).

According the place, city's hospitalization (teamwise with suburb) are 1162 cases (54.6%) and from village 966 cases (45.4%).

Mortality of infectious diseases is 124 cases (5.827%) where the main place is taken by lower respiratory tract infectious deaths.

Conclusion: Infectious diseases take a main place in 1month-1yrs infant morbidity (66.02%).Mortality is with a high percentage of 5.827%, where the first place is taken by lower respiratory tract infectious diseases with cardipathia with 87 cases(4.088%).

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