

using the standard technique and the antibiotic sensitivity was performed by Kirby -Bauer's disc diffusion method. The aerobic isolates were studied in detail by Gram's staining, colony characteristics, biochemical properties and antibiotic sensitivity. Blood culture reports of these 770 clinically suspected neonatal septicemia cases were reviewed and there was no growth in 499 (63.80%) cases. Blood cultures were contaminated in 36 (4.6%) cases. Gram positive cocci constituted 86.80% of 235 isolates in blood cultures. Coagulase negative staphylococcus (CONS) was predominant isolate (65.53%). Gram positive bacteria *Staphylococcus aureus* was isolated from 40 (17.02%) positive blood culture. Among Gram negative organisms *Klebsiella* spp. was predominant pathogens (24/30 Gram negative isolates). According to the results CONS, *Staphylococcus aureus* and *Klebsiella* spp. are the principal organisms causing neonatal sepsis in Montenegro.

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**NEONATAL SEPTICAEMIA:  
BACTERIOLOGICAL PROFILE AT A DISTRICT  
GENERAL HOSPITAL IN UK**

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**Background and aims:** Septicaemia remains an important cause of morbidity and mortality in neonates with blood culture as the gold standard investigation. Doing periodic epidemiological surveys of aetiological agents and their sensitivity patterns help in the recognition of most frequently encountered pathogens. It also guides antimicrobial therapy and helps to reduce potential mortality. Aim was to determine the bacteriological profile and sensitivity pattern of the isolates from both anaerobic and aerobic blood culture bottles in the neonatal unit.

**Method:** Retrospective data was collected from all the blood cultures sent from our neonatal unit between October 2007 and October 2009.

**Results:** Of the 886 blood cultures, 55 (6.2%) were positive. 36 (65%) were associated with early onset sepsis (within 48 hours after birth). 22 (40%) were positive cultures from the aerobic bottle, 23 (42%) from anaerobic and 10 (18%) from both bottles. The most common organism isolated was coagulase

negative staphylococcus (65%), many of which were likely to be skin contaminants. 6 (11%) were group B streptococcus and 6 (11%) were Gram negative rods with *Enterobacter* sp. and *E. coli* as the main organisms. All the group B streptococci were susceptible to penicillin and the Gram negative organisms to cefotaxime.

**Conclusions:** Majority of the organisms were coagulase negative staphylococci. Antibiotics chosen for empirical cover are appropriate for the clinically significant organisms isolated. It is important to send blood in both anaerobic and aerobic culture bottles and the result should be interpreted in relation to the clinical condition of the neonate.

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**THE CLINICAL OBSERVATION OF THE  
INFANTS BORN FROM MOTHERS WITH  
GENITAL UREAPLASMA UREALYTICUM  
COLONIZATION**

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**Background:** Genital colonization of *Ureaplasma urealyticum* (Uu) in pregnant women could transmit vertical infection of their babies (about 15~89% of offspring) and cause neonatal infection, which result in infection in many organs. The purpose of this study was to determine clinical influences on the infants born from genital Uu colonization mothers.

**Methods:** We retrospectively reviewed the data for analysis of the 219 infants born from mother who had test for genital Uu culture (about 470 cases) for 3 years (Mar 2006 - June 2009) in East-West Neo Medical Center, Kyunghee University. The neonatal clinical manifestations such as, duration of tachypnea, incidence of oxygen therapy, respiratory distress syndrome (RDS), bronchopulmonary dysplasia (BPD), sepsis, jaundice, feeding intolerance, etc. were investigated by gestational period (GP).

**Results:** In case of positive genital Uu culture of mothers, the preterm infants (GP < 35 weeks) had increased heart rate within 6 hours after birth, prolonged tachypnea, short period of antibiotics use, and lower incidence of RDS and hypocalcemia. oxygen therapy duration, the methods and duration

of positive pressure ventilation, incidence of BPD of preterm infants were not affected by maternal Uu results. The near and full term infants (GP > 35 weeks) from Uu positive mothers showed the increased jaundice.

**Conclusions:** It is hardly to say that genital Uu colonization in pregnant women influence the infants except jaundice. The infants who had GP < 35weeks from Uu mother showed increased heart rate within 6 hours after birth, prolonged tachypnea, short period of antibiotics use, lower incidence of RDS and hypocalcaemia.

### 1386

#### CAN WE SUSPECT THE INTRA-AMNIOTIC INFLAMMATION BY USING GASTRIC FLUID IN A PREMATURE NEWBORN?

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**Background:** Inflammatory cytokine expression in cord blood or tracheal aspirate in premature infants is correlated with increased response of intra-amniotic inflammation (IAI). However, measurement of gastric cytokines in premature infants has been seldomly studied so far, although a feeding tube insertion is the common and simple procedure. The aim of this study was to investigate if the gastric cytokine measurement could be an alternative way, helping physicians identify the IAI.

**Methods:** Premature infants born by Cesarean section and their mothers were enrolled into this study. Amniotic fluid (AF) samples were collected by using aseptic techniques during Cesarean delivery, and gastric fluid (GF) samples in premature infants were collected by feeding tubes immediately after birth. The concentration of interleukin-6 (IL-6), interleukin-8 (IL-8), tumor necrosis factor-alpha (TNF- $\alpha$ ) and mannose-binding lectin (MBL) in GF were compared with those in AF.

**Results:** Of 63 preterm birth, 23 were succeeded in collecting both amniotic and GF samples. These infants had mean birth weights of 1,701 $\pm$ 557.3g (range, 710 to 2480 g) and gestations of 31.7 $\pm$ 2.2 weeks (range, 27 to 34 weeks). There was a strong correlation between AF IL-6 and GF IL-6 concentrations ( $r=0.872$ ;  $p<0.001$ ), AF IL-8 and GF

IL-8 concentrations ( $r=0.851$ ;  $p<0.001$ ), AF TNF- $\alpha$  and GF TNF- $\alpha$  concentrations ( $r=0.845$ ;  $p<0.001$ ), AF MBL and GF MBL concentrations ( $r=0.768$ ;  $p<0.001$ ), respectively.

**Conclusion:** Our data suggest that measurement of cytokines using the GF sample in a premature infant might be a respective tool to identify whether the newborn has been exposed to the IAI.

### 1387

#### EPIDEMIOLOGICAL PROFILE OF PATHOGENS COLONIZING THE RESPIRATORY TRACT IN PATIENTS WITH CYSTIC FIBROSIS

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**Introduction:** The aim of the study was to characterize the evolution of the epidemiological profile of bacteria isolated from the respiratory tract of cystic fibrosis (CF) patients.

**Methods:** Retrospective review based on bacterial isolation from the respiratory tract of all the patients attending our CF center during 4 years (2006-2009).

**Results:** 90 patients were included (54% female; median: 12 years). Pseudomonas aeruginosa (PA) was the main agent of chronic colonization. In 2006, 42% of them were colonized with Pseudomonas aeruginosa (20% have chronic PA infection). In 2007 the number of chronic PA patients increased (30%) and its prevalence was constant over 2008 (33%) and 2009 (35%). In 2006 there was not patient with Methicillin Resistant SA (MRSA). The prevalence in 2007 was 3%, in 2008 (7%) and in 2009 increased to 18%. Haemophilus influenzae was isolated in 15% of the patients. Burkholderia cepacia was isolated only in one patient, and Aspergillus sp. in 3 patients.

**Conclusion:** In the last 4 years there is increase in the prevalence of chronic PA infections. Moreover, the MRSA isolation increased significantly. Cultures from induced sputum specimens provide additional microbiological information, which is of clinical value and lead to changes in patient management.