Background and Aims: One third of the world population has been infected by the hepatitis B virus (HBV), causing an enormous worldwide burden of chronic hepatitis, cirrhosis and hepatocellular carcinoma. We make revue of clinical characteristics of acute hepatitis B infection in children in Montenegro.

Methods: 180 children suffering from acute virus hepatitis were examined on Clinic for infectious diseases in Podgorica during the period 2006–2012. We used epidemiological and clinical data and blood tests for hepatitis viruses, Epstein-Barr virus, CMV and adenoviruses. Research sample is consisted of 18 children, which are old from 7–15 years with clinical, laboratory and virology verification of acute hepatitis B.

Results: Epidemiological data have indicated the infection trough blood or blood products in 14 children and in 4 the way of infection remained unknown. HBsAg and antiHBc IgM were positive, values of alanine aminotransferase were elevated and PCR HBV DNA was higher than 200000 U/l in all children. The most frequent symptoms were the loss of appetite (88%) and fatigue (70%). Fever was registered in 30% of children, while the diarrhea is reported in 25%, higher than 200000 U/l in all children. The most frequent symptoms were in 12% of cases. Patients without symptoms were present in 12% of cases. Three children after a follow-up longer than one year developed chronic infection.

Conclusions: Even though immunisation for hepatitis B virus is mandatory since 2002 in Montenegro, the acute hepatitis B isn’t rare infection. Children are at the greatest risk for developing potentially fatal complications of the infection.

Background and Aims: Bacterial diarrhea is very common in particular in developing countries and is still one of the most causes of mortalities in children. The aim of present study was to identify the most common of bacterial agents causing acute bacterial diarrhea in children under 14 years old and detection of their resistance to antibiotics.

Methods: During two years, 610 samples obtained from children under 14 years old with gastroenterotitis were investigated for bacterial cultures, frequency of age, serogrouping of isolates and antibiotic patterns. Polyclonal (I, II, III, IV) and monovalent antisera were used for serogrouping of Escherichia coli (EPEC). Antibiogram tests were also performed by gel-diffusion method of Kirby-Bauer. The data were gathered through a questionnaire and analysed using spss software.

Results: Out of 610 tested samples, 155 cases (25.4%) had positive culture for intestinal pathogenic bacilli. The most common isolate was, Escherichia coli (EPEC) with 105 cases (67.8%) and the lowest isolate was Shigella with 18 cases (11.6%). The most common serogroup of E. coli was O128 (26.6%) and the lowest serogroup was O119 (5.7%). The most common serogroups of Salmonella were S. typhi (34.4%) and S. typhimurium. The most common serogroup of Shigella was S. sonnei (55.6%). The most effective antibiotics against bacteria were ceftriaxone, nitrofurantoin, imipenem, amikacin and gentamycin.

Conclusions: The present study showed that Escherichia coli (EPEC) and Salmonella species are predominant causes of bacterial diarrhea in children under 14 years old in this region. Most species showed high resistance to routine antibiotics such as ampicillin, trimethoprim and chloramphenicol.

Background and Aims: Respiratory tract infection (RTI) among children is one of the most common reasons for physician visits and hospitalization and associated with significant morbidity. It is a leading cause of sickness among school children and parental absenteeism from work. Accordingly, this study was conducted to evaluate the spectrum of the respiratory tract infections among the children attending the outpatient department (OPD) of pediatrics in GMC Hospital, Ajman.

Methods: A cross-sectional study was conducted from the medical records of pediatric patients (aged 0–12 years) diagnosed with RTIs during January 2011 at GMC Hospital, Ajman. The demographic data and the clinical diagnosis were analyzed (descriptive statistics) using SPSS version 19.

Results: A total of 2416 patients attended the OPD of pediatrics during the study period of which RTI accounted for 20.2% (n=488). 55.5% (n=271) were males and 44.5 (n=217) were females. Majority of the patients were Egyptians followed by Emiratis and Indians. Forty six percent of the patients (225) were between 1–5 years of age. The four most commonly diagnosed RTIs were unspecified upper respiratory tract infections (URTIs) (20.5%), common cold combined with bronchitis (17.8%), tonsilitis (8.8%), followed by bronchitis (8%) in rank order. URTI was most commonly presented by children of 1–5 years (50.5%), while common cold combined with bronchitis was frequent among those below 1 year (47.1%).

Conclusions: Comparable to previous reports upper respiratory tract infections were the most common RTI among this population and children of 1–5 years were most vulnerable to RTI.

Background and Aims: Apnea can be a presenting symptom in respiratory Syncitial Virus (RSV) infection. The incidence of apnea in RSV infected infants varies between 16 and 25% with a particularly high risk associated with young age (< 3 mo) and prematurity. Apnea is frequently observed in early RSV infection when symptoms are still confined to the upper airways, suggesting inflammatory response induced autonomic dysfunction.

Objective: The aim of the study is to assess autonomic dysfunction as indexed by Heart Rate Variability (HRV) in severe RSV infection. The secondary parameter is to analyze the effect of other viral pathogens on autonomic function in infants with LRTI requiring mechanical ventilation.

Methods: Prospective observational study in a tertiary PICU in infants with viral LRTI requiring mechanical ventilation. Controls were age matched infants without signs of infection. Autonomic function was assessed via HRV, monitoring low frequency (LF) and high frequency (HF) indices of short time recordings (5 min).

Results: In 7 patients and 13 controls 36 recordings were analyzed. Total HRV, LF and HF/HF ratios were significant lower in RSV patients versus controls (p<0.0045, p<0.0002 and p<0.0001 respectively). In ventilated infants with LRTI caused by other respiratory
Acute Respiratory Tract Infections in Preschool Population of Georgia

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Aim and methods: To assess the frequency of ARI in preschool children population, identification of risk factors and main principles of treatment. The cross sectional study was conducted using the special questionnaires for parents of 3–6 years children and in all regions of Georgia. At all 1448 parents and caregivers were interviewed.

Results 2.3% of children have 7–8 episodes of ARI per year, 19.9%, have 3–5, 53.4% 1–2 episodes per year and in 24.2% ARI are very rare. The incidence of ARI is higher in urban population, then in rural area and in mountain regions (p<0.001). The main symptoms for admission to health care facilities were cough (82, 8%) and fever (75, 9%). Study revealed the risk factors for ARI: male sex, living in urban area, attendance of day care centers, exposure to passive smoking, big number of family members significantly increase risk of ARI. There was no correlation between the type of feeding in infancy and frequency of ARI infection in 3–6 years old children. In 47% of ARI cases antibiotics were used from those in 32 # parents started antibiotics by self.

Conclusion Male sexes, urban regions, attendance of day care center, passive smoking are the significant risk factors for development of ARI in children aged 3–6 years. Primary health care providers still prescribe unnecessary and excessive antibiotics. The incidence of ARI may be reduced substantially through public health measures.

The Study of Antimicrobial Resistance Among Shigella Flexneri Strains Isolated of Children in Tehran, Iran

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The Aim of this study was to evaluate the level of intestinal sIgA in children with rotavirus infection (RVI) depending on disease severity.

Methods Between November 2009 and February 2011, stool specimens from 85 children less than 4 years of age suffering from RVI were tested for intestinal sIgA by ELISA. 75.6% of patients were with moderate severity of disease and 23.5% - with severe course. 66% of children were studied as controls.

Results Intestinal sIgA in patients on the 1st–2nd day of RVI was 22.6±1.05mg/l and significantly different (p<0.01) from the level of healthy children 31.8±1.35mg/l. The following dependence from disease severity was detected: intestinal sIgA in severe case 16.7±1.6mg/l which was significantly less (p<0.001) than in patients with moderate severity 24.6±1.21mg/l. Intestinal sIgA increased up to 32.7±1.55mg/l in patients with moderate severity on the 5th–6th day of disease and to 22.9±1.83mg/l in patients with severe case which were significantly different (p<0.05).

Conclusions The level of intestinal sIgA on the 1st–2nd day of disease was less than the level of healthy children. Severe course of disease is usually present in case of low concentration of sIgA. The level of sIgA in patients with moderate severity of RVI increases up to the level of healthy children on the 5th–6th day of disease and it is significantly higher than the level of sIgA in patients with severe...