

susceptibility to severe infections with distinctive susceptibility to various types of pathogens, like mycobacterium bovis in BCG (Bacille Calmette-Guérin) vaccine.

Methods We conducted retrospective study (demographics, investigations and treatments) over 5-years period, between 2007 and 2011, at King Abdulaziz Medical City-WR, Saudi Arabia for patients diagnosed with disseminated BCGitis.

Results Out of 16 susceptible immunodeficiency patients given BCG vaccine at birth, 6 patients (37.5%); one chronic granulomatous disease, one ectodermal dysplasia/cytokines deficiency and 4-severe combined immunodeficiency were diagnosed to have disseminated BCGitis. The average age at time of diagnosis was 10½ - months (range: 3 to 30 months), one patient was diagnosed post-bone marrow transplantation. The diagnosis confirmed by microbiologic stain and TB cultures from lungs, gastrointestinal tract and skin biopsies. All patients received 4 anti-tuberculous (TB) drugs, except one patient still on five anti-TB and IFN-γ treatments for a year. In comparison to studies from nonindustrial countries (their survival rates ranges: zero to 50%), we achieved an excellent survival rate (100%). However, one patient developed chronic lung disease.

Conclusion Our results (100% survival rate) highlight the importance of high index of suspicion, early diagnosis of PID and BCGitis and promote intervention with anti-TB drugs. However, because of prolonged anti-TB therapies and high fatality rates of BCGitis reported from nonindustrial countries where also BCG vaccine is compulsory at birth, we recommend suspending BCG vaccine for susceptible PID newborns till such diagnosis ruled out.

1827 AN EXPERIENCE OF USAGE OF ACELLULAR DTAP VACCINE IN CHILDREN OVER 4 YEARS OLD

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Actuality: Pertussis is a high contagious bacterial infection with an air-drop way of transmission, remains a serious problem as in Russia, as all over the world. The only reliable way of prevention is immunization. The booster dose against pertussis injects at the age of one and a half years by the integral cellular DTP vaccine. In connection with the decrease of intensity of immunity in 4–6 years after it, especially among children of school age, teenagers and adults, pertussis grows in these age groups. It is necessary to apply less reaktogenny acellular DTaP vaccine.

Purpose To estimate the shipping of DTaP vaccine in children over 4 years old as healthy, as with different deviations in a state of health.

Materials and Methods 83 children were immunized at the age of 4–12 years old: 29 health children and 54 children with various chronic diseases. The shipping of immunization was analysed.

Results Side effects, which have developed in first 3 days after immunization, have been noted at 27.7% of children with allergic pathology. All of them were moderate degree of expressiveness (temperature not higher than 38.5 C, hyperemia no more than 4–5 sm). Noone strong reactions were fixed.

Conclusion DTaP vaccine showed well safety profile, side effects in children with allergic pathology were moderate, had a short-term. DTaP vaccine is recommended as a booster dose in children at the age of 6–7 years old for inclusion to the National Calendar of inoculation of Russia.

1828 PNEUMOCOCCAL DISEASES IN CHINA, OUR RECENT STUDIES

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Our reviewed data demonstrated that *Streptococcus pneumoniae* (*S. pneumoniae*) is an important pathogen and death of pyogenic meningitis, pneumonia, and other infectious diseases in children. The distribution of serotypes of *S. pneumoniae* showed great diversity in several studies. The penicillin nonsusceptibility rates demonstrated an increase over time in China. The prevalence of resistance to erythromycin was very high. A total of 202 paraffin-embedded lung autopsy tissues of children aged 1 month to 5 years old who died of CAP were selected at random from a hospital. Conventional PCR, southern blotting and ISPCR were used to detect *S. pneumoniae* in lung tissues for a mouse pneumonia model and in 202 autopsy samples from fatal childhood CAP cases, 1 month to 5 years old, between 1953–2002. Southern blotting and ISPCR detected *S. pneumoniae* in 107/202 (53.0%) and 106/202 (52.5%) human samples respectively. A combined total of 116/202 (57.4%) samples were found to be positive by both methods. There is evidence that *S. pneumoniae* was an important cause of fatal childhood CAP in China, as elsewhere. Recently a total of 171 *Streptococcus pneumoniae* isolates causing invasive disease were isolated from Chinese children. The serotype distribution and antimicrobial resistance were tested. The results suggested that the 7-valent pneumococcal conjugate vaccine has a preventive effect among children and that there should be long-term surveillance for serotype 19A. Pneumococcal disease burden in China should be undertaken in the future to provide evidence and guidance to the use of vaccine and antibiotics in *S. pneumoniae* infections.

1829 SEVERE FORMS OF OSTEOGENESIS IMPER.FECTA (OI) IN INFANTS AND THE ROLE OF RESPIRATORY SYNCITIAL VIRUS (RSV) IMMUNOPROPHYLAXIS WITH PALIVIZUMAB

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Background and Aims Respiratory illnesses could be serious, even life threatening among infants with severe forms of osteogenesis imperfecta (OI). Respiratory syncytial virus (RSV) bronchiolitis could deteriorate the respiratory status of infants with severe OI increasing length of stay (LOS) and often needing paediatric high dependency unit (PHDU) or paediatric intensive care unit (PICU) care. Immunoprophylaxis using Palivizumab - monoclonal antibody to RSV F protein could prevent RSV bronchiolitis for severe OI infants. We aimed to audit our local practice and national data.

Methods We conducted a retrospective chart review of infants with severe OI in the Mid-West of Ireland from 2005 to 2010, all of whom received Palivizumab in addition to the standard care for OI with early bisphosphonates. From national computerised Hospital In-Patient Enquiry (HIPE) data information on all infants in Ireland with OI admission and RSV positive bronchiolitis was tabulated. LOS and bed days use nationally were determined. Information of immunoprophylaxis for national OI cohort was obtained from the national provider of Palivizumab. Hospital audit committee approval was sought.

Results No infant in the Mid-West of Ireland with severe OI who have received Palivizumab developed RSV bronchiolitis. Nationally 17% of non-prophylaxed infants with OI developed RSV positive bronchiolitis among the 121 admissions. Increased LOS, bed days consumption and PICU admission were observed among those with dual pathology of severe OI and RSV infection. We could not establish statistical significance for observations.

Conclusion Infants with severe forms of Osteogenesis Imperfecta seems to benefit from RSV immunoprophylaxis with Palivizumab.

1830 HBEAG SEROCONVERSION IN CHILDREN INFECTED DURING EARLY CHILDHOOD WITH HEPATITIS B VIRUS

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Background and Aims Seroconversion of HBeAg to anti-HBe is associated with lower viral load and liver diseases. The purpose of this study was to assess the seroconversion rate of HBeAg to anti-HBe in children who acquired HBV infection during childhood period.

Methods From September 1990 to December 2010, 139 HBeAg positive children were followed up. Eighty-one subjects were failure of Hepatitis B immune globulin (HBIG) and hepatitis B vaccination at birth and 58 children < 10 years who were born before 1990 and did not receive HBIG and vaccine. HBsAg, HBeAg, anti-HBs and anti-HBe was assessed every six months.

Results Sixty two (44.6%) cases were males and 77 (55.4%) were females. Mean duration of follow-up was 18±6.6 years. Twenty-four (17.3%) mothers were HBeAg positive and 115 (82.7%) anti-HBe positive. Eighty-two (59%) children became anti-HBe positive. Seroconversion rates in the first, second and third decades were 25%, 63.4% and 70.5%, respectively ($p=0.001$). The children of anti-HBe positive mothers had higher seroconversion rate than the HBeAg positive mothers (75% versus 33.9%, $p=0.0001$). Time to seroconversion rates in children born to HBeAg positive mothers was similar to those born to anti-HBe positive mothers (HR=1.03, $p=0.973$). Time to seroconversion rates in children who received hepatitis B vaccine and HBIG was higher than those who did not (HR=6.35, $p=0.0001$).

Conclusions HBeAg seroconversion in the second and the third decades were higher than the first decade. Children born to anti-HBeAg positive mothers and those who received HBIG and hepatitis B vaccine had higher seroconversion rates.

1831 RUBELLA-VACCINE EFFECTIVENESS 5YRS AFTER MASS VACCINATION: MULTI-CENTER SERA-EPIDEMIOLOGY RETROSPECTIVE COHORT STUDY

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Background The vaccine has been in use since 1969. In December 2003, during mass camping for Measles/Rubella vaccination in Iran, about 33 million doses of vaccine were administered to the 5–25 yrs old people. This serological survey was conducted to evaluate the effectiveness of Rubella vaccine after 5yrs of mass camping in mothers and their neonates.

Methods This was a historical-Cohort study has been done in September (2009–2010). Study population was 180 women (20–30 yrs old) who referred for pregnancy routine care. All pregnant were at first time and didn't have Rubella-history in the past 5 years. Serum samples of women were evaluated for IgG level and newborn dried blood spot samples were evaluated for IgG and IgM levels.

Results The IgG levels of mothers were 50–10 IU (27.3%), 100–50 (19.3%) and above 100 IU (53%). All of IgM titers in newborns were negative. It was significantly relationship between level IgG of Mothers and Full-Term Newborns (OR=3.45, 95%CI=1.54–7.90).

Conclusion The mass vaccination has been effectiveness then the routin surveillance had to evaluate the IgG levels of reproductive age's mothers.

1832 MEDICAL STUDENT ATTITUDES AND PRACTICES ASSOCIATED WITH RECEIVING HEPATITIS A VACCINE AND VACCINE ADVERSE EVENT AND EFFECT ON ACCEPTABILITY

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Objective In this study we aimed to assess the attitudes and practices of medical students regarding hepatitis A immunization and also adverse reactions of associated with vaccine and effect on acceptability.

Methods The study was performed on 103 medical students with ages between 20 and 26 years old. All the students vaccinated by the same nurse at Hacettepe University Faculty of Medicine on 14 days in December and answered a questionnaire and follow-up form.

Results The mean student age was 21.69±0.97 years. Pain with movement (58.3%) and pain with touch (38.8%) were the most common side effects at vaccination site. Despite the side effects, all of the vaccinated students wanted to receive the following dose of vaccine. Twelve of the vaccinated students (11.7 %) indicated that the reason of their vaccination was the recommendation of a pediatric infectious disease specialist. One of the major reason for not wishing vaccination was the cost for 60 of them (58.3%).

Conclusions The cost of vaccination and recommendation by infection specialist may have been important to receive hepatitis A vaccination for medical students and also may be for other health care workers.

1833 ACUTE NECROTIZING ENCEPHALOPATHY OF CHILDHOOD ASSOCIATED WITH INFLUENZA A

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Background Each year many children suffer from respiratory infections caused by Influenza A virus, but only a limited number experiences severe complications. One of these serious complications is an acute necrotizing encephalopathy (ANEC).

Methods We report two cases of patients with ANEC following upper airway infection. Both children were referred to our paediatric intensive care unit (PICU) due to rapid neurological deterioration and respiratory failure. None had received vaccination against influenza. A 16-year old boy presented with difficulties in speech and motor deficits. A 14-months old girl had multiple focal seizures. Her Glasgow-Coma-Scale was 4 on admittance to PICU.

Both patients received a MRI (Magnetic Resonance Imaging) of the brain. The MR imaging findings demonstrated abnormal signal intensity bilaterally in multiple cortical and subcortical regions. In both cases Influenza A was detected on a nasopharyngeal swab by using polymerase chain reaction assay.

Results Both patients were treated with oseltamivir without notable clinical improvement. The boy showed complete convalescence. The girl suffered from increased intracranial pressure within hours after hospital admittance needing urgent external cerebrospinal fluid drainage. Her condition was complicated by an acute respiratory distress syndrome requiring mechanical ventilation. Meanwhile her consciousness has dramatically improved, but we still expect neurological sequelae.

Conclusion To our knowledge severe complications following an infection with influenza are rare but have to be kept in mind when treating a child with respiratory infection and neurological impairment. The insufficient response to oseltamivir underlines the need