

PO-0542 CONGENITAL RUBELLA STILL EXISTS IN TUNISIA

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Background and aims Congenital rubella is a rare and serious disease including auditory, neurological, cardiac, urinary, and ocular abnormalities.

Aims remind the gravity of the rubella seroconversion during pregnancy and the necessity of its prevention.

Methods We report a retrospective analysis of 21 cases of congenital rubella, confirmed by serology, followed in paediatric and neonatology department between 2004 and 2013.

Results The average age of diagnosis was 21 days. Maternal rubella immune status was unknown in 10 cases. Seroconversion was noted in 7 cases, a patient had a residual immunity and a skin rash arisen during the pregnancy was noted in 5 cases. At birth 16 patients had intrauterine growth retardation, leukokoria (6 cases), cardiac breath (9 cases), facial dysmorphism (7 cases) and genital anomalies (4 cases). The ophthalmologic examination showed: bilateral cataract (4 cases), unilateral cataract (2 cases), glaucoma (1 case) and a case of bilateral corneal dystrophy. The biology showed 5 cases of thrombopenia. The cardiac sonography showed cardiac defects in 11 cases, with variable anomalies mainly patent ductus arteriosus (7 cases) and pulmonary stenosis (4 cases). The hearing evoked potential showed a bilateral deafness in 2 cases. The outcome was unfavourable with death in 3 cases, retarded growth associated with a psychomotor delay in 6 cases.

Conclusion The persistence of congenital rubella syndrome in our country shows the necessity of including rubella immunisation in the routine national immunisation program, especially in developing countries.

PO-0543 THE DEVASTATING POTENTIAL OF NEONATAL PSEUDOMONAS AERUGINOSA OCULAR INFECTIONS

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Background Pseudomonas aeruginosa may account for 8% of acquired Ophthalmia Neonatorum in modern NICUs. Under recognition may lead to delays in treatment.

Objective To highlight the presentation and severity of P. aeruginosa ocular infection in preterm infants and describe the early medical management and evaluation.

Case Reports: We report two cases of invasive P.aeruginosa eye infections treated on level III units in the SE London Perinatal Network.

Case 1: 31 weeks GA infant developed purulent discharge from one eye on day 4. The cornea became opaque (day 6) with peri-orbital swelling on treatment (Clarithromycin drops IV ceftazidime, gentamicin). Eye swabs (d5): P.aeruginosa. Subsequently treated with Ofaxocillin eye drops. The cornea became necrotic and the infant received an amniotic membrane graft. (Figure 1 and 2).



Abstract PO-0543 Figure 1



Abstract PO-0543 Figure 2

Case 2: 33 week GA with swelling and erythema of the eyelid in 1 eye (day 4) with 2 white lesions on the cornea. Within 24 h the sclera appeared yellow with pustular discharge. There was corneal ulceration and hypopyon. Corneal scrapings and eye swabs grew P.aeruginosa. Blood cultures were negative. The central corneal ulceration was repaired with conjunctival flap. A temporal tarsorrhaphy was placed from d17–28. Subsequently required an amniotic membrane graft.

Conclusion P. Aeruginosa ON in preterm can lead to rapid severe ocular infection. Increased vigilance and rapid microbiological evaluation of sticky eyes is required. Urgent ophthalmological examination and prompt treatment may ameliorate visual impairment.

PO-0544 VOLUNTARY TOXOPLASMOSIS SCREENING IN PREGNANCY UNDERESTIMATES ACTIVE INFECTION IN DEPENDENCY OF SOCIOECONOMIC FACTORS: DATA FROM A POPULATION-BASED SURVEY OF NEONATES IN POMERANIA (SNIP)

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Background and purpose 40% of all initial infections with *Toxoplasma gondii* during pregnancy develop into congenital toxoplasmosis, which is associated with the risk of severe damage to the CNS, frequent premature deliveries, and stillbirths. In Germany, toxoplasmosis immunity screenings are not covered by the state health insurance as a general preventive care service, in contrast to screening for rubella immunity. Therefore, we analysed the impact of socioeconomic factors on the efficiency of private toxoplasmosis screening during pregnancy in a population-based study.

Material and methods Toxoplasmosis and rubella screening data were collected from 5403 mothers during the period from May 2002 to June 2008 within the population-based Survey of Neonates in Pomerania (SNIP).

Results At the first screening, 34.2% of expecting mothers were immune to toxoplasmosis, 75.2% had immunity against rubella after active immunisation. Negative immunity for toxoplasmosis was found in 39.7% and in 7.7% for rubella (missing information: toxoplasmosis: 25.8%; rubella 17.2%). Less than 10% of the women without immunity participated in a second toxoplasmosis screening. An active toxoplasmosis infection was found in 0.3% (n = 17) women during pregnancy. There were no infections with the rubella virus. Pregnant women with a higher socioeconomic status participated in screenings considerably more frequently.

Conclusion Our population-based sample demonstrated a substantial risk of toxoplasmosis infection during pregnancy in contrast to the rubella risk. Furthermore, lower socioeconomic status adversely affects the rate of toxoplasmosis screening. This data support the need for toxoplasmosis screening for pregnant women as a general health care benefit covered by insurance.

PO-0545 INFECTIOUS DISEASES IN TERM NEWBORN INFANTS

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Background and aims Maternal, environmental, and host factors determine which infant exposed to a potentially pathogenic organism will develop serious or other potentially invasive infections, causing significant mortality and long-term morbidity in neonates. The purpose in this retrospective study was to identify the bacterial microorganisms caused neonatal infectious diseases in term newborns hospitalised in the Centre of Neonatology, during the period of 2002, 2003 and 2004.

Methods We used clinical, microbiological, laboratory and radiology methods.

Results 1391 term newborns (TNB) were treated at the Centre of Neonatology in Podgorica during the period 2002–2004. In 528 TNB were proven infections. Most frequent infectious diseases were: omphalitis (44,9%), pneumonia (18,5%), sepsis (10,9%), cutaneous infections (8,7%), urinary tract infection (5,3%), conjunctivitis (5,5%), otitis media (3,8%), mastitis (1,7%), diarrhoea (0,7%). Sepsis and/or meningitis were diagnosed in 58 term newborn (10,9%). The bacterial agents responsible for sepsis and/or meningitis were: *Coagulans Negative Staphylococcus* (41,3%), *Staphylococcus Aureus* (19%), *E.coli* (5,3%), then with equally frequency *SGB*, *SGA*, *Streptococcus pneumoniae*, *Enterococcus*, *L. Monocytogenes*, *Klebsiella pneumoniae*, *Acinetobacter*, *Serratia*, *Pseudomonas*, *Klebsiella-Enterobacter* (each one 1,7%). Meningitis were proven in 16 TNB or 27,6%.

Conclusions Temporal and geographic differences of various neonatal pathogens are well recognised. It is important to identify the bacterial microorganisms in our region, analysis of longitudinal trends assist in the formulations of strategies to treat and prevent neonatal serious infections.

PO-0546 LESSONS FROM 10 YEARS OF INVASIVE FUNGAL INFECTION AT SINGAPORE GENERAL HOSPITAL NICU: EPIDEMIOLOGY, RISKS, CLINICAL COURSE AND OUTCOMES

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Introduction Invasive fungal infections (IFI) in preterm neonates are rare, but associated with increased mortality and morbidities, both short and long term. IFIs in preterms are also increasing globally.

Aims To review the epidemiology, risk factors, clinical course and outcomes of all IFIs in newborns at Singapore General Hospital for the period 1/1/2002 to 31/7/2012.

Methods Retrospective matched case-control study. Cases of IFI were matched 1:1 with another neonate of the same gestation in the same year of birth.

Results 6 cases of IFI were matched with 6 controls. All were extremely low birth weight (ELBW) infants. Many IFI cases had risk factors for sepsis perinatally.

Significant risk factors associated with IFI include surgery (OR 25.000 95% CI 1.200–520.734), more than 35 days of conventional ventilation (OR 25.000 95% CI 1.200–520.734), 9 lots of platelet transfusion or more (OR 7.000 95% CI 1.140–42.969), vancomycin (OR 25.000 95% CI 1.200–520.734) and cephalosporins (OR 6.000 95% CI 1.003–35.908).

5 out of 6 IFI presented with thrombocytopenia with elevated C-reactive protein. Other presentations included hypotension (3 out of 6), increased ventilation settings (2 out of 6) and leucopenia (2 out of 6).

All IFIs were *Candida albicans*. Multiorgan involvement is prevalent. All 6 IFIs had positive endotracheal as well as urine cultures. 3 had positive catheter tip cultures, 2 had positive peritoneal fluid cultures, and 1 had positive blood culture.

Conclusion Classical presentations and significant risk factors for IFI in ELBWs were identified which allowed earlier identification and possible modification of risks.