25.003
Efficacy of serum semi-quantitative procalcitonin measurement kit PCT-Q for bacteremia
T. Kodama*, H. Wakatake, M. Yanai, S. Fujitani
St. Marianna University School of Medicine, Kawasaki-City, Japan

Background: Serum procalcitonin (PCT) concentration has been used as a specific biomarker for diagnosis and severity of the bacterial infections. Although data of quantitative PCT concentration for bacterial infections have been accumulated, clinical implications for semi-quantitative PCT concentration have not been well defined. Thus, we report the clinical utility of PCT-Q especially for cases with bacteremia.

Methods: PCT-Q concentration was measured in those who were suspected bacterial infections among all patients who were evaluated in our Emergency Department from September 2007 to March 2008. PCT-Q concentration was divided into four classes (<0.5, >0.5, >2.0, >10.0ng/mL) and above 0.5ng/mL that was the cut-off value were defined as bacterial infections. We compared the results of PCT-Q with quantitative PCT concentration, white blood cells (WBC) and C-reactive protein (CRP). The results of blood culture of all recruited patients were evaluated. The concentration between PCT-Q positive for bacteremia were also analyzed. Furthermore we compared the rates of detection of Methicillin-resistant Staphylococcus aureus (MRSA) in this period with that of previous one year.

Results: A total of 291 patients among all 16,700 patients were evaluated. The concentration between PCT-Q and quantitative PCT were almost concordant. Discordance between PCT-Q concentration and WBC was observed, while significant correlation between PCT-Q concentration and CRP concentration was obtained. The sensitivity and specificity of PCT-Q among patients with bacteremia was 72.1% and 64.4%, respectively. The rate of detection of MRSA fell from 6.5% (50/766) to 3.8% (29/773).

Conclusion: PCT-Q is useful for diagnosing severe bacterial infections including bacteremia. PCT-Q could be useful to restrain from the emergence of bacterial resistant strains by decreasing unnecessary antimicrobial usage.

doi:10.1016/j.ijid.2010.02.1606

25.005
Infectious complications of venomous snakebite: 2 cases from Eastern Nepal
S.K. Sharma*, S. Shrestha, B. Badhu, C.S. Agrawal, B. Khanal
BP Koirala Institute of Health Sciences, Dharan, Nepal

Background: Venomous snakebite is a common and deadly disease throughout the tropics, but there are few reports of infections associated with snake envenomation in Asia. We describe two patients with distinct infectious syndromes following venomous snakebites in Eastern Nepal.

Methods: Two case reports.

Results: Case 1: Endophthalmitis and necrotizing fasciitis. A 21 year old female victim of snake bite (common cobra) to the foot presented within 30 minutes and received 24 ampoules of antivenom (Bharat Serum, India) over 2 days. After 18 hrs she developed dusky, ascending wound discoloration associated with (pain, blisters, fevers, and leukocytosis). Necrotizing fasciitis was diagnosed and treated with antibiotics and surgical debridement. On hospital day 2nd, the patient developed right eye pain and blindness. Analysis of vitreous humor aspirate revealed gram negative bacilli, and intravenous and ocular antibiotics were administered; aspirate cultures revealed growth of Serratia

doi:10.1016/j.ijid.2010.02.1605

25.004
Salivary IgA responses in newborn against pathogen of oral cavity. Influence of prematurity in this response
University of Sao Paulo - Faculty of Medicine of Ribeirao Preto, Ribeirao Preto, SP, Brazil

Background: Analysis of the mucosal immune system represents an interesting way to understand the microbial colonization in early life, particularly the response of SIgA (Secretory IgA) present in saliva because it represents the first line of defense. Previous study showed in children with 6 months of age, high complexity of SIgA response to antigens of Streptococcus mutans (MS), main pathogen of the dental caries, but little is known about the ontogeny of the mucosal immune system in the first day of life especially in preterm newborn (below 37 weeks of gestation). Thus, we compared the levels and specificity of SIgA to MS and others species enrolled with initial infection in fullterm (FT) and preterm (PT) early in life.

Methods: Stimulate saliva from 160 children, with 0 day of life, were enrolled in this study. Salivary IgA and IgM levels were determined by ELISA. Subsets of 24 fullterm (FT) and 24 Preterm (PT) children showing similar salivary IgA levels were paired and matched for gender, racial background, breastfeeding, SIgA antibody reactivity to MS, Streptococcus sanguinis (SSA), Streptococcus mitis (SMi) and Streptococcus gordonii (SGO) Ags was determined in Western blot assays.

Results: Levels of SIgA were statistically different (Whitney test, p<0.05) between groups and in FT were 2.5 times higher than PT children. Fifty and 37.5% of PT and FT respectively not show any response to antigens of the microorganisms tested. Significant diversity was observed in IgA antibody response patterns to Ags. The number and intensity of reactive bands was higher in FT than PT children for all antigens tested. Some antigens were more frequently detected in salivas, such as: 165KDa of SGO, 172 KDa of SSA, 202 KDa of SMI, 185 and 160 KDa of MS. Responses to 165KDa of SGO were unique among those antigens that presented different in their pattern of recognition between FT and PT (Chi-square, p<0.02).

Conclusion: The data indicate that salivary IgA responses to Ags can occur in the first day of life and children PT show a diminished response of SIgA to SSA, SMi, SM and SGO Ags which may be due to lower concentrations of IgA (FAPESP:07/57346-5; 07/50807-7).