Methods: Children aged 3 months to <5 years with new episodes of AOM (onset of symptoms <3 days) were included. Middle ear fluid (MEF) samples were collected by tympanocentesis or by sampling of spontaneous otorhea (<20% of all cases). Recovered bacteria were identified and serotyped.

Results: 99 children with new episodes of AOM were enrolled between January 2008 and January 2009. 100 MEF samples from tympanocentesis (n = 84) and otorrhea (n = 16) were collected (1 subject had 1 sample collected in each ear). The median participant age was 29 months (range: 5-55 months), and 54.5% of subjects were male. Bacteria were cultured from 63% samples with at least one pathogen under study. H. influenzae was isolated in 31 (31%), 30 S. pneumoniae (30%), 2 S. pyogenes (2%) and 3 S. aureus (3%). 14 (46.7%) S. pneumoniae isolates were serotypes found in the two licensed pneumococcal conjugate vaccines (14, 19F & 23F), 7 (23%) were vaccine-related types 6A (n = 5) and 19A (n = 2) and 7 were non-vaccine types. 27/31 (87%) of H. influenzae isolates were non-typeable. No M. catarrhalis was isolated.

Conclusion: Non-typeable H. influenzae and S. pneumoniae were the leading bacterial causes of AOM in Cali, Colombia. A vaccine with efficacy against both pathogens would be most useful to prevent AOM.

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80.010
Risk factors (RF) for necrotizing enterocolitis (NE) in Pediatric oncologic patients (POP) with neutropenia (NTP)

Hospital de Niños “Ricardo Gutiérrez”, Buenos Aires, Argentina

Background: NE is a life threatening complication in neutropenic patients

Objective: To identify risk factors for NE.

Methods: Retrospective analytical study Jan 03-Nov 07 at Hospital de Niños de Buenos Aires.NE: POP with NTP and abdominal symptoms (AS) with bowel wall thickness >4 mm by CT scan and/or ultrasonography Controls (C): POP with NTP and AS with normal imaging. Exclusion: POP without AS. RF for NE: Underlying disease (UD), Cytosine arabinoside (ARA C) use, fever (F), diarrhea (D), vomiting(V), abdominal pain (AP), abdominal tenderness(AT), sepsis(S), and platelets count (PC). Demographic data, isolations (I), treatment (T), hospitalization days (HD) and mortality (M) were also analyzed. Chi2 and Mann-Whitney tests were used in univariate analysis. All factors with p < 0.05 were included in multivariate model.

Results: Population 83 episodes/63 patients. NE 31/83 (37.3%) vs C 52/83 (62.7%). Age(median) 117(5-241)mo, male 43/83 (51.8%), UD: Hematologic malignancies 60/83(72.5%). NE didn’t differ from C in age, gender or UD. Groups were different in F 31/31 (100%) vs 44/52 (84%),p=0.02; D 31/31 (100%) vs 42/52 (81%),p=0.009; AP 29/31 (93.5%) vs 39/52 (75%),p=0.03; AT 22/31 (71%) vs 9/52 (17%),p < 0.001 and PC(med) 17000/ul(3000-370000/ul) vs 49000/ul (6000-33000),p=0.02, S 14/24 (58%)vs 18/58 (31%) p 0.021.No differences were observed in the ARA C and V. In the multivariate analysis, only AT p<0.001, OR 11.67 remained statistically associated. I: NE 13/31 (42%) vs C13/52 (25%) p0.1. I in NE: Klebsiella sp 6/13 (46%), E.coli.5/13 (38.5%) and Pseudomonas aeruginosa 3/13(23%). T in NE carbapenems-aminoglycosides (AMG) 10/31 (32%) or 3rd gen cephalosporins -AMGmetronidazole 20/31 (64.5%). NE vs C required surgical T 5/31 (16%) vs 5/52 (10%), p 0.37 and HD(med) 17(2-60)d vs 12(3-95)d, p 0.85. M 6/83(7.2%), NE 4/31(12.9%) vs C 2/52(3.9%), p0.12.

Conclusion: AT was the only independent risk factor for NE. In POP with NTP and AS, images to confirm NE should be performed if AT is found.

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80.011
Temporal variation of human rotavirus types circulating in Caracas during 2007-2008


1 Instituto Venezolano de Investigaciones Científicas, Caracas, Miranda, Venezuela
2 Instituto de Medicina Tropical, Caracas, Venezuela

Background: Human rotavirus (RV) is considered the main viral cause of acute gastroenteritis in children in both developed and developing countries. The recent implementation of a vaccination program promises to effectively reduce the disease burden and health care costs of rotavirus-specific diarrhea. Surveillance is needed to assess the impact of immunization on the rotavirus diarrhea incidence and variability of the circulating strains. In the last decades, RV molecular genotyping has provided valuable information about the diversity of rotavirus outer capsid proteins (VP7/G and VP4/P) of strains circulating throughout the world. Previous studies have demonstrated a broad diversity in rotavirus strains circulating in Venezuela, with predominance of G1, G3 or G4 in combination with P[8] type. The purpose of the present study was to monitor the prevalence of the G/PNSP4 genotypes of rotaviruses circulating in Caracas between February 2007 and April 2008 and detect any uncommon or novel types by means of molecular characterization.

Methods: A total of 164 rotavirus-positive stools from diarrheic pediatric patients aged between 2 months and 5 years collected in Caracas, were tested by multiplex seminested RT-PCR and/or sequencing of the VP4, VP7 and NSP4 rotavirus gene.

Results: The analysis revealed 5 common G/P-NSP4 combinations, being G2P[4]/NSP4A and G1P[8]/NSP4B the most prevalent (43% and 38%, respectively), while G3-, G4- or G9-P[8]/NSP4B were more sporadically found. Although present throughout the period studied, G2P[4]-NSP4A rotavirus was the most widely circulating type until November 2007, from then being prevalent G1P[8]-NSP4B strains. Four isolates showed an unusual genotype G8P[14], until now only described in Latino America among animal rotaviruses, 3 of the isolates being associated with NSP4C and one with NSP4A genotype.
Conclusion: This study highlights the wide genetic diversity among rotaviruses isolated in Caracas, the temporal variation of the predominant types and the occurrence of a unusual type, G8P[14], described for the first time among humans in our region, probably derived from interspecies transmission. Therefore, it is crucial to continuously monitor circulating rotavirus strains, to understand the effect of rotavirus variation on the efficacy of currently available vaccines.

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80.012
Kawasaki disease in a children hospital at Dominican Republic, period January 2006-October 2009
C.S. Mota

Hospital Dr. Robert Reid Cabral, Santo Domingo, Dominican Republic

Background: Kawasaki is a febrile illness characterized by the inflammation of middle-size arteries that affect children, primarily younger than 5 years, of unknown etiology. Since its description by Tomisaku Kawasaki, in Japan, 1967, has been a target of epidemiologic, clinical and laboratorial interest. Early recognition is one of its principal challenges, because, it is related with a good prognosis. In Dominican Republic the first’s cases were described in 1986.

The target of this research is to describe the clinical characteristics of the Kawasaki disease’ cases in the principal pediatric hospital in Santo Domingo, Dominican Republic.

Methods: This is a descriptive, observational and cross-sectional study to determine the clinical and epidemiological characteristics of patients admitted with the diagnosis of Kawasaki disease in the Hospital Dr. Robert Reid Cabral from January 2006 to October 2009.

Results: During the observational period in the Hospital Robert Reid Cabral were admitted 17 patients with the diagnosis of Kawasaki disease. 10 (58.8%) were female, 7 (41.2%) male; 6 (35.2%) younger than 1 year; 7 (41.2%) 1-5 years; 4 (23.5%) older than 5 years. Fever was present in all of the cases, nevertheless, duration was quite different, from 5 to 20 days in 6 patients (35.7%); the clinical findings more frequently reported were conjunctival injection in 15 (88.2%) patients, cervical lymph adenopathy 14 (82%); strawberry tongue and erythema of oropharyngeal mucosa 12 (74.5%); skin rash and desquamation 10 patients (58.8%). Only one patient presented cardiac abnormalities. Three (3) patients were treated with immunoglobulin. No mortality reported.

Conclusion: The findings in the patients from the Dominican hospital were quite similar to those described in the medical literature, mismatching only in the female gender predominance, but it had little significance. Diagnosis was basically clinical, even though the apparent delay in the diagnosis and treatment, the outcome was satisfactory.

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80.013
Epidemiology, clinical and microbiology characteristic of multiresistant Acinetobacter spp. bacteremia in a pediatric hospital in Argentina

Hospital de Pediatria Dr. Juan P. Garrahan, Buenos Aires, Argentina

Background: Multiresistant Acinetobacter species emerge as an important healthcare-associated pathogen. An understanding of the epidemiology is necessary in order to develop strategies to curtail their spread.

Methods: The aim was to analyze the epidemiology, clinical characteristics and antimicrobial profile of multiresistant Acinetobacter spp. bacteremia (MAB) in a pediatric hospital.

Methods: Demographic and clinical data from all MAB clinically relevant (2005 -2008) were collected at Garrahan Hospital. Time-kill studies and a PCR assay with degenerate oligonucleotide primers were performed. Stata 8.0 was used for data analysis.

Results: A total of 50 MAB were analyzed, 66% was confirmed as A. baumannii and five clones were detected (clone 1:34%). Time-kill curves tested in the different clones showed only bactericidal effects in 3/5 with ampicillin-sulbactam plus gentamycin and in 5/5 with polymixin. The median age of the patients was 13.5 months (IQR: 6 a 54 months). The median length of stay before bacteremia was 16 days (IQR: 8-32 days), 94% of the patients acquired bacteremia in PICU. Eighty eight percent of the patients had underlying conditions: congenital heart diseases (34%), burns (25%) and onco-hematological disease (13.63%) were the most frequent. Ninety four percent received broad spectrum antibiotics (carbapenems and third-generation cephalosporin), 20% immunosuppressive therapy and 46% had malnutrition. All patients had invasive procedures before bacteremia: 90% central venous line, 80% had previous surgery, 76% mechanical ventilation and 52% urinary catheter. The final diagnosis was: central venous catheter-associated bacteremia (40%), bacteremia related to skin and soft-tissue infections (26%) and bacteremia (24%). Antibiotics used for treatment were: colistin alone (52%), colistin plus carbapenem (26%), colistin plus Piperacillin- tazobactam (10%), colistin plus ampicillin- sulbactam (4%) and cepefime plus colistin (2% respectively). The median length of therapy was 14 days (IQR: 14-21 days), 7/50 (14%) patients died but only 3 were related to bacteremia.

Conclusion: MAB was detected in patients with medical underlying conditions and prolonged hospitalization. In vitro bactericidal effect was similar with colistin alone as well with the different combination tested. The development of innovative control strategies is needed in order to limit the spread of these pathogens.

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