Enterovirus008- **Probe-based detection with Luminex beads: a valuable screening method for molecular diagnoses of four enteric viruses in Children of a Case Control Study in Northeastern Brazil.**

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Several viruses are recognized as important causes of diarrheal disease, particularly in children less than 5 years old, leading cause of morbidity and mortality worldwide. Uniplex or Multiplex PCR based-molecular diagnosis imply in time-consuming agarose gel electrophoresis work and, consequently, high probability of false-negative results. We aim to examine a new developed multiplexed assay for simultaneous detection of the four major enteric RNA-viruses in a case control study of diarrheal diseases. The design was a study of 1,200 children (600 cases and 600 age and neighborhood matched controls), age 3-36 months. Cases were defined as diarrhea with more than three liquid stools in the last 24 hours and controls were without history of diarrhea in the last two weeks. Stool RNA was extracted with kit QIAamp RNA stool kit (Qiagen, Valencia, CA). A simple protocol combining a one-step multiplex PCR with microsphere-based fluorescence detection was used for astrovirus (capsid), norovirus GII (ORF1–ORF2), rotavirus (NSP3), sapovirus (RdRp-capsid) and extrinsic control (MS2g1). After the mothers or caregivers signed the consent form, we evaluated the first 206 children, 100 cases and 100 controls. The prevalence of the target viruses among 206 children were as follows: 1,94% astrovirus, 0,48% norovirus, 26,67% rotavirus and 4,8% sapovirus. The viruses detected from cases were as follows: 3% (3/100) astrovirus, 1% (1/100) norovirus, 32% (32/100) rotavirus and 7% (7/100) sapovirus. If we combine all four viruses diagnosed in cases we would find a prevalence of 43% (43/100). The virus detected from controls were as follows: 0,9 % (1/106) *astrovirus*, 0% (0/106) *norovirus*, 23,6% (25/106) *rotavirus* and 2,8 % (3/106) *sapovirus*. If we combine all four viruses diagnosed in controls we would find a total prevalence of 27,35% (29/100). We could not find any association of a single target with cases. However, if we combined all four viruses we could find an association among cases after Fisher Test with a p value of 0.0201. Even though any single diagnosed enteric RNA-virus could be associated with cases, our results showed that enteric viruses are still an important diarrheal causing agent and could be associated among diarrhea cases of Brazilian Northeastern country side children. **E-mail:** ahavt@ufc.br

Enterovirus009- **Detection of sapovirus in fecal specimens of children with acute gastroenteritis, from Manaus, amazonas, Brazil, during January/2010 to March/2011**

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Introduction: Sapovirus (SaV), a member of the genus *Sapovirus* in the family *Caliciviridae*, is an etiologic agent of human gastroenteritis. SaV has a single-stranded positive-sense RNA genome of approximately 7.3 to 7.5 kb, being a non-enveloped virus. SaV strains can be divided into five genogroups (GI, GII, GIII, GIV, and GV), of which GI, GII, GIV, and GV strains infect humans, and can be further divided into genotypes. In general, SaV is associated with sporadic cases of acute gastroenteritis in children and elderly people. This pathogen is also related with outbreaks in day care centers, nursing homes and among hospitalized children. Symptoms include diarrhea with watery stools, vomiting and fever. The transmission occurs primarily by fecal-oral route, by aerosol and consumption of contaminated food or water. Material and methods: Fecal samples were collected from January/2010 to March/2011, of children with acute gastroenteritis. They were initially tested for rotavirus and norovirus with negative results. For the detection of SaV it was used the reverse transcription-polymerase chain reaction (RT-PCR) with the primers p289/ p290 that are specific for human calicivirus. The products obtained were visualized in a 1% agarose gel and all the samples that showing specific amplicons of 331 bp were considered positives. Results: SaVs was detected in 4 (4.8%) of the 82 samples tested. Besides diarrhea,

fever and vomiting were also observed in one of the children positive to SaV. Main conclusions: The positivity rate detected in this study (4.8%) was similar to the ones obtained in researches conducted in Belém-PA (4.9%). However it is higher than the registered in Australia (4.1%) and lower than the registered in India (10.2%). This is the first reports about SaV in Manaus-AM. Considering the few studies conducted in Brazil concerning this virus, there is need for further studies to elucidate the real epidemiological importance of this pathogen. **E-mail:** tammykathlyn@gmail.com

DISEASES BY HANTAVIRUS

Hanta001- **Serological survey for hantavirus in rural workers from State of Alagoas, Brazil: preliminary results**

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Introduction: Hantaviruses are rodent-borne enveloped RNA-viruses belonging to *Bunyaviridae* family that have worldwide distribution. Members of the *Hantavirus* genus have been identified as etiologic agents of two severe human diseases: hemorrhagic fever with renal syndrome (HFRS) or hantavirus cardiopulmonary syndrome (HCPS) depending on the species of hantavirus involved. Human infection is acquired by inhalation of aerosols containing excreta of rodents infected by hantavirus. In Brazil, according to reports by Brazilian Ministry of Health, in the State of Alagoas, to date there is no reports of hantavirus infections. This region has an economy based on the sugar cane agroindustry. The region has been almost completely deforested, with important consequences to the environment and this is favorable to colonization by wild rodents. **Objective:** The aim this study it was investigated the presence of memory IgG antibodies to hantavirus in rural workers from Coruripe, Alagoas State, Brazil, by performing a serological survey in Coruripe Plant. **Method:** Sera of 350 volunteers healthy rural workers were collected and used to detect IgG antibodies against N protein of *Araraquara* hantavirus (rN ARAV), by enzyme immunoassay (ELISA). The positive samples were then titrates. **Results:** The IgG anti-rN ARAV antibodies were detected in 29 of 350 (8.29%) samples. Of these, 21 (72.41%) volunteers positive for IgG attested that had never lived or travelled out of state of Alagoas. **Conclusions:** This is the first study to demonstrate serological evidence of past infections with hantavirus in human from the state of Alagoas. Our findings provide new insights into the epidemiology of hantaviruses in the Northeast Region from Brazil. **Financial support:** CNPq, CAPES, FAPEAL. **E-mail:** alessandra.a.borges@gmail.com

Hanta002- **Laguna-Negra like Hantavirus in *Calomys callidus* rodent in Central West of Brazil**

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Introduction: Laguna Negra virus (LANV) was first identified as causing an outbreak of Hantavirus Pulmonary Syndrome in the Chaco region, Paraguay in 1995.The same study found the vesper mouse, *Calomys laucha* as a primary reservoir of the virus in Paraguay. Laguna Negra was also described in 12 cases of HPS and wild rodents of the species *Calomys callosus* and *Akodon simulator* in Argentina and was subsequently identified in rodent and human cases in Brazil. The aim of this study was to investigate the circulation of hantavirus in rodents captured in the municipality of Sapezal, Mato Grosso, Brazil, a