FATTAL HUMAN BOCAVIRUS INFECTION IN A BOY WITH IPEX-LIKE SYNDROME AND VACCINE-ACQUIRED ROTAVIRUS ENTERITIS AWAITING STEM CELL TRANSPLANTATION

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We report about a 21-month-old boy presenting with chronic diarrhea and obstructive lung disease since infancy. His older brother, the first male child of non-consanguine Egyptian parents, had died at the age of 20 months suffering from BCGitis and severe CMV infection, suggesting a severe primary immunodeficiency syndrome.

We found immunological dysregulation, endocrine dysfunction and enteropathy compatible with IPEX syndrome, therefore the child was listed for stem cell transplantation (SCT). FOXP3 gene showed no IPEX associated mutations, but sequencing IL23G we found an mutation in Exon 2 associated with x-linked IPEX-like SCID (c.252C>A, p.N84K).

The pulmonary condition of the boy deteriorated and he was admitted on the ICU, where he was mechanically ventilated ever since. After common respiratory infections were excluded, chronic human bocavirus (hBoV) was identified by multiplex-PCR as the primary causative pulmonary agent causing his respiratory failure. HBoV was found in decreasing quantity in respiratory material, blood and stool specimen.

Interestingly, chonic rotavirus shedding was notified in repetitive stool specimen. As the boy had been vaccinated against rotavirus, vaccine-aquired chronic infection was suspected and confirmed by typing of a vaccine virus specific gene variant.

The boy died before SCT could be preformed.

Since its discovery, there is an ongoing discussion if hBoV can cause serious infections or represents only a harmless "bystander". This case report shows that hBoV can result in lethal respiratory infections in immunocompromised children.
Background and Aims  Neuroinfection is an entity with possible serious subsequent complications. Early and precise diagnosis can help in purposeful treatment and accurate prognosis. The aim of the study was the analysis of principles and value of neuroimaging in the diagnostic process in pediatric neuroinfection.

Methods  The retrospective analysis comprised 74 patients diagnosed with encephalitis and/or meningitis. The cohort was divided into two groups: A (meningitis: n=45) and B (encephalitis and meningoencephalitis, n=29). Data obtained from medical records (medical history, signs and symptoms, results of laboratory tests and radiological imaging) were investigated. Computer tomography (CT) or magnetic resonance (MR) were performed in the study group.

Results  In the group A first CT examination revealed abnormalities in 9.7% of patients, in the group B - in 28% of children. MR examination showed pathological brain area in 79.3% of patients in group B. High signal in SE/T2 was observed in 95.7% and in FLAIR in 86.9%. In 90% of analyzed group B the disturbances in DWI were noted.

Conclusions  CT examination preformed in the initial stadium of meningitis and/or encephalitis has limited diagnostic value for recognizing of inflammation. The characteristic of the abnormalities revealed by MR enables to recognize inflammation changes in central nervous system and their localization can direct diagnostic process. The presence of brain tissue alterations in MR image has significant correlation with clinical symptoms like seizures, consciousness disturbances and neurological deficits. The most sensitive sequences in estimation of the inflammation activity process are DWI and FLAIR.

963  PREGNANCY-ASSOCIATED PLASMA PROTEIN A LEVELS AND NEONATAL COMPLICATIONS IN POST-TERM PREGNANCIES

Methods  A double blinded randomized control trial was carried out on 250 preterm newborns, GA >29 and <37w and free of medical complications. After enrollment, all subjects were randomly assigned to study (N=107) and control group (N=143). All preterms received routine pediatric care and osteopathic sham therapy was administered to the study group only for the entire period of hospitalization. Primary outcome was to detect the association between placebo treatment and change in clinical outcome in newborns. Therefore the aim of this study is to detect the association between placebo treatment and change in clinical outcome in newborns.

Results  At entry, univariate statistical analysis showed no differences between groups. At the end of the study, after adjusting for all potential confounders, generalized linear model analysis showed no difference on the primary outcome (mean difference between study and control group: 2.444; 95%CI: -0.447, 5.337; p=0.09).