INTRODUCTION

- Febrile seizures (FS) occur between the age of 1 and 60 months, with fever, are generalized and usually lasting less than 15 minutes.
- The etiology of FS is not known, although infections, immunizations and genetic susceptibility, all have been linked to an increased risk of FS. Herpes virus 6 (HHV6) and Cytomegalovirus (CMV) are neurotropic virus and remain latent after a primary infections.
- 10 to 50% of FS cases in children are associated with HHV6 primary infection. An association between FS and CMV infection has not been established.

AIMS

- To investigate the association between HHV6 and CMV and FS

MATERIAL AND METHODS

- Observational study of children (3months to 5 years) with FS, without known neurological disease, presented to the emergency department of a level III hospital.
- Real time polymerase chain reaction (PCR) in whole blood and serology were made for HHV6 and CMV in the acute setting. Demographic, clinical and laboratory characteristics were studied.

RESULTS n=46

- CMV - HHV6 - (n=20)
  - 9/20 (45%)
- CMV + (n=8)
  - 1/8 (12.5%)
- HHV6 + (n=22)
  - 7/22 (31.8%)
- CMV + HHV6 + (n=4)
  - 0/4 (0%)

- Mean days of fever
  - 1,5
  - 1,38
  - 2,2
  - 1,75

- First seizure
  - 17/20 (85%)
  - 6/8 (75%)
  - 20/22 (91%)
  - 4/4 (100%)

- Complex seizure
  - 1/20 (5%)
  - 1/8 (12.5%)
  - 5/22 (23%)
  - 1/4 (25%)

- Mean seizure duration (minutes)
  - 5
  - 3
  - 6
  - 4

- Mean leukocyte count
  - 15
  - 12,4
  - 8,7
  - 12

CONCLUSION

- We found a significant percentage of FS associated with HHV6.
- HHV6 causes a mild disease with unspecific signs in the first days of illness.
- The reactivation of CMV is a known fact in septic patients, but not in this kind of mild disease. Our findings suggest a possible association with FS in younger patients. The cause-effect relationship remains to be established.
- It is not known how or why seizures are generated in response to fever, and what is/are the causative factor(s) of FS in children. Although a benign disease, some children progress to having epileptic syndromes. The challenge is to identify the group at risk, and so, further studies are needed to identify these risk factors.

BIBLIOGRAPHY