PARVOVIRUS ASSOCIATED WITH NEUROLOGIC SYMPTOMS

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INTRODUCTION

Recently, an increasingly number of reports in pediatric patients with parvovirus B19 associated with neurologic symptoms has been reported. Immunologic mechanisms can be related with this type of illness presentation.

CASE REPORT

16 years old male

Previously healthy

Emergency department

high fever, arthralgia, headache and an erythematous rash in the superior limbs for two days, vomiting and photophobia since that day

Ill-appearance. Blanching erythematous rash in the superior limbs. No articular deformaties or inflammatory signs. Stiffness of neck.

1114/ul leucocytes, 81.9% neutrophils and 185000/ul platelets
C protein reactive 128,2mg/L

Cerebrospinal fluid (CSF): clear
Cytology: 87 leucocytes (61.6% polymorphonuclear lymphocytes)
Biochemical: normal protein and glucose levels
Cultures: pending

Admitted in the hospital

Ceftriaxone, vancomycin and acyclovir were initiated empirically, based on the preliminary diagnosis of meningitis

On 3th day of admission, the patient maintained:

- high fever
- severe headache
- intense photophobia
- with rash progression to the trunk

Vancomycin

Initiated doxicilin

Fundoscopy: papilledema

Cerebral magnetic resonance: signs of intracranial hypertension (IH)

INTENSIVE CARE UNIT

PCR Parvovírus B19, *Borrelia burgdorferi*, *Streptococcus pneumoniae*, *Rickettsia* (CSF): on course

PCR HSV 1&2, enterovírus and cultures (CSF) negative

Started anti-edematous measures with progressive clinical improvement

PCR Parvovírus B19, *Borrelia burgdorferi*, *Streptococcus pneumoniae*, *Rickettsia* (CSF) negative

Positive serum DNA Parvovirus < 215UI/ml Serum Parvovirus IgM-/IgG+ (21,91 RU/ml)
No available CSF antibodies

IV immunoglobulin for 5 days with progressive clinical improvement

Re evaluation 4 weeks later: no neurologic sequels

- Serum PCR Parvovirus B19 <150UI/ml
- Serum IgM-/IgG + (2,57 RU/ml)

CONCLUSION

Parvovirus B19 seems the cause of meningitis complicated with IH with clinical evolution which is in agreement with other reports. The definitive diagnose is difficult to make so the clinical and laboratorial surveillance is necessary to better understand the etiology.