



NOROVIRUS ASSOCIATED ENCEPHALOPATHY

Inês Salva¹, João Farela Neves¹, Maria João Brito¹
¹ Infectious Diseases' Unit, Pediatrics Department
Head of Department: Dr. Gonçalo Cordeiro Ferreira
Hospital de Dona Estefânia – CHLC, EPE, Lisbon
PORTUGAL

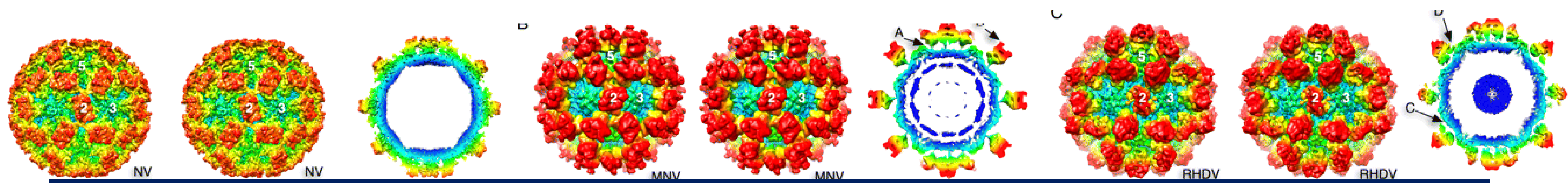
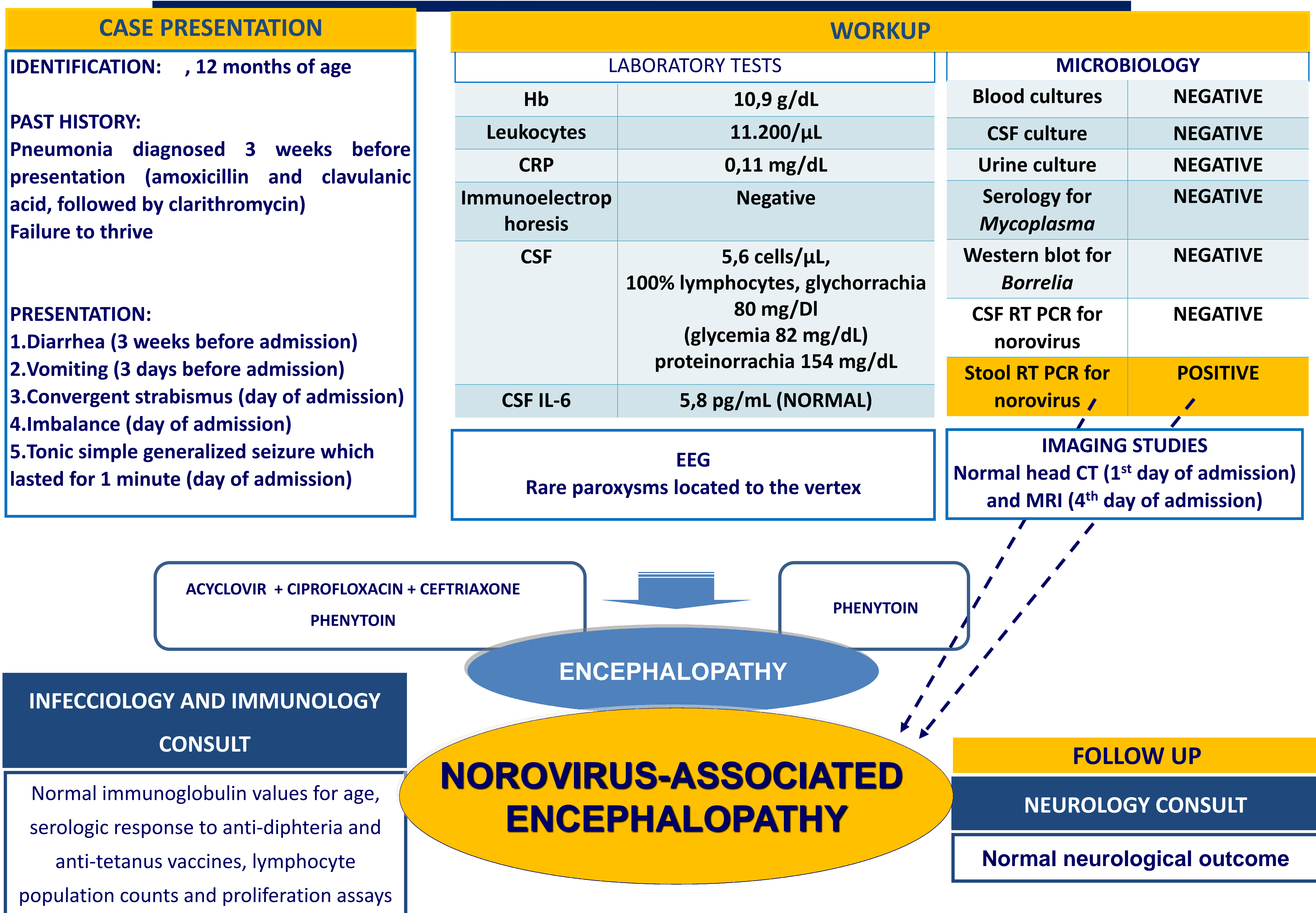


BACKGROUND

Norovirus is one of the genera of the Calicivirus family there are five known genogroups (GG I through V).¹ It is one of the most common causes of gastroenteritis in both children and adults.² Neurologic complications such as febrile seizures are rare, although more frequent than observed with infections with other enteric virus, such as rotavirus.^{1,2} Norovirus-associated encephalopathy is presumably rare, but has been reported twice.^{1,2}

There is one reported case of encephalitis associated with positive PCR for norovirus in CSF.²

Other cases described presented with seizures or encephalopathy associated with negative CSF PCR for norovirus. There was a marked increase in CSF cytokines, underlining the significance of inflammatory response versus direct nervous system invasion.¹



COMMENTS

Here we present a case of a norovirus infection, associated with encephalopathy, with a normal neurological outcome and normal cytokine levels in CSF, unlike previously described in some reports.² Similarly to a previous report, norovirus was not found in CSF samples.² Attending to the progressive emergence of this agent across the world, further studies are needed to clarify its pathogenicity and relevance in encephalopathy cases.¹

REFERENCES

- 1 – Ito S, Takeshita S, Nezu A, et al. Norovirus-associated encephalopathy. *The Pediatric Infectious Diseases Journal*. 2006, 25(7): 651-652;
- 2- Obinata K, Okumura A, Nakazawa T. Norovirus Encephalopathy in a Previously Healthy Child. *The Pediatric Infectious Diseases Journal*. 2010. 29(11): 1-2;
- 3 – Caul E. Viral gastroenterites: small round structured viruses , caliciviruses and astroviruses. Part II. The epidemiological perspective. *J Clin Pathol*. 1996. 49(12): 959-964.