

Case

- 73 year old male
 - 11th October 2019: Admitted to hospital with clinical encephalitis
- Clinical presentation
 - Fever
 - Problem with balance
 - Expressive aphasia
 - Confusion
 - Odd behaviour
- CTC
 - Small thrombosis in sinus sagittalis superior. Can not explain the symptoms
- EEG
 - Encephalitis
- MRI-C
 - Normal

Laboratory tests

12th October 2019

- CSF
 - Biochemistry
 - WBC $44 \times 10^6/L$ (mono 13, poly 31)
 - Protein 0.9 g/L
 - HSV and VZV PCR negative
 - Enterovirus PCR negative
 - TBE antibody not tested

12th October 2019

- Serum
 - HSV-1 IgG positive 43.2 arb. unit
 - VZV IgG positive 1843 arb. unit
 - TBE IgG positive 114.5 units/mL
 - TBE IgM positive 27.5 S/CO
 - West Nile virus IgG positive, IgM negative
 - Japanese encephalitis IgG positive, IgM negative
- CSF/serum
 - Intrathecal antibody index
 - HSV IgG positive – routine lab (Enzygnost)
 - Borrelia negative
- Urine
 - Not tested

15th October 2019

- Serum
 - TBE IgG positive 93.3 units/mL
 - TBE IgM positive 3.38 S/CO
- Plasma
 - Flavivirus RNA negative
 - West Nile virus RNA negative

17th October 2019

- CSF
 - Biochemistry
 - WBC $13 \times 10^6/L$ (mono 11)
 - Protein 1 g/L
 - TBE IgM positive 1.7 S/CO
- CSF/serum
 - HSV intrathecal antibody index negative – reference lab (Gamma capture ELISA)

Treatment and follow up

- Treatment
 - Aciclovir iv for 10 days followed by valaciclovir po for 10 days
- Follow-up
 - CSF and blood from 12th October send to reference laboratory for re-testing
 - HSV intrathecal index **negative**
 - 21st November 2019 still positive for TBE antibodies (same level as in October)
 - IgG 82,4 units/mL
 - IgM 3,1 S/CO
 - 23rd October 2019 patient discharged from hospital
 - Improvement, but still affected – will scale down activity

Later we found out.....

- Patient travelled to Riga, Latvia in September 2019
 - May have consumed goat cheese, no knowledge about whether it is unpasteurised
- Tick bite in June at Bornholm, Denmark
- Biphasic clinical course
 - Late September: Flu-like symptoms for 4 days
 - Beginning of October: CNS affected

Conclusion

- The patient had TBE infection
- Most probably was the patient infected in Riga
- HSV intrathecal synthesis was false positive in the routine test