Bickerstaff Brainstem Encephalitis with extensive medullary involvement. An unusual stroke mimic.

Cebrián. J, Muro. I,Trillo. S, Díaz Pérez. C, Ramos. C, de la Fuente. E, Nombela. F, Vivancos. J.

Stroke Unit. Neurology Department. Instituto de investigación Sanitaria Princesa. Hospital Universitario de la Princesa. Madrid.

BACKGROUND AND AIMS:
Bickerstaff brainstem encephalitis (BBE) Is a rare disease included in the clinical and immunological spectrum of the Miller-Fisher syndrome. It has an autoimmune etiology usually related to anti-GQ1b antibodies

METHOD:.
We report a case of BBE mimicking acute stroke that received early immunosuppressant treatment.

CASE REPORT

24-year-old male patient with relevant medical history of sporadic ketamine consumption.

SYMPTOMPS:
- Wake-up symptoms: lower facial paralysis, dysarthria and impaired consciousness
- Gastrointestinal infection one week before.

EXAMINATION:
- Horizontal diplopia + VI CN palsy and multidirectional nistagmus.
- Supranuclear left facial palsy
- Absent gag réflex. Left palatal palsy.
- Bilateral upper dysmetria.
- Preserved strenght. Myotatic reflexes were globally increased with Bilateral clonus

↓ URGENT CT

Multiparametric-CT: normal.
Acute reperfusion treatment is witheld as the time of symptoms-onset is not known and in absence of any artery oclussion.

Lumbar Puncture is performed (Suspected Inflamatory/infectious rhombencephalitis**)** → **CSF** had normal values.

↓ ADMISSION AT THE STROKE UNIT

- I. V **Aciclovir and** I.V **Ampicilina are started**
- **Esteroid bolus is administered (**soon after normal urgent CSF normal results -leucocyte recount, biochemistry values and Gram stain-).

↓ ICU ADMISSION

First day of admission: Clinical worsening
- **Urgent MRI**: **Extensive medullary involvement.**
- **ICU admission**

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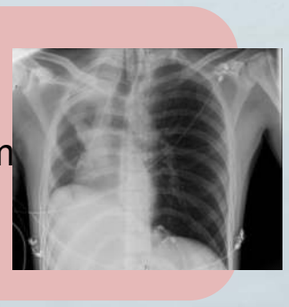
- Poorly secretion management and compromised airway.
- Orotracheal intubation was performed
- **Urgent** Orotracheal intubation→ Left lung atelectasis + pneum



- **5-day immunoglobulin treatment is indicated**

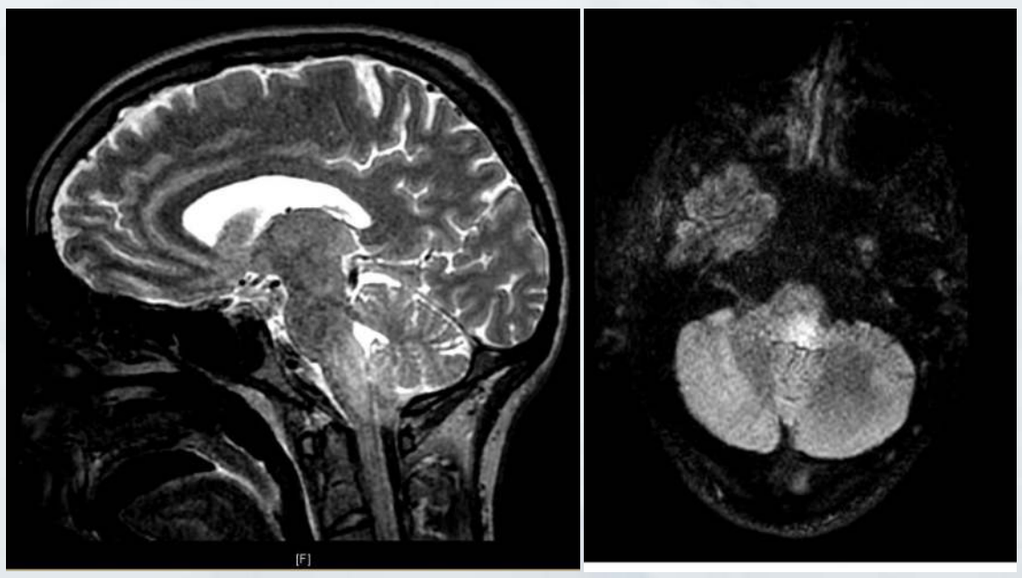
ICU complications:
- Tracheostomy and nasogastric nutrition.
- Aspirative Pneuomonia (*S. Pyogenes*) treated with i.v Meropenem.

↓ NEUROLOGY HOSPITALIZATION

29-day admission:
- Left upper limb mild dysmetria
- Independent wide-base gait

- Positive CSF antiGM2-IgM antibodies.

COMPLEMENTARY EXAMS
- **Multiparametric-CT**: normal.
- **Lumbar Puncture**: Cell recount, Biochemistry normal. Negative viral and bacterial determinations.
- **Electroneurography/electromyography** did not show any alteration.
- **Urgent brain MRI**: **Extensive medullary involvement on T2-weigth images without contrast enhancemet.**
- Blood analysis and serologies: Negative.
- Positive **antiGM2-IgM antibodies**



CONCLUSION:
- This case report highlights the importance of an early diagnosis of stroke mimics, which can lead to a fast clinical worsening.
- Immunosuppressant treatment and compromised airway awareness is essential if BBE is suspected. Our patient had a good clinical outcome in spite of showing extensive medullary involvement
- The current evidence of BBE mediated by antiGM2-antibody is scarce and dysimmune neuropathies have been more frequently reported.

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Hospital Universitario de La Princesa
SaludMadrid
Comunidad de Madrid
unidad de Ictus
Hospital Universitario de la Princesa
Servicio de Neurología
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