Moroccan clinical case

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- A 25-year-old man
- Medical history of chronic intermittent headache since a year
- Admitted for a meningitic syndrome, with headache, fever, vomiting and photophobia. He complained about these symptoms a week ago.

- Physical examination:
  - Temperature :39.5°C
  - Blood pressure :110/70 mmHg
  - Pulse rate : 100 beats/min.
  - Neck flexion was resisted, Kernig's and Brudzinski's signs were positive.
  - No focal neurological or mental abnormality was found.
  - Cardiorespiratory and abdominal examination found no abnormalities.

- Slit lamp examination was normal .

- Cerebrospinal fluid (CSF) examination:
  - clear liquid
  - pleiocytosis of 400 cells/mm^3 (97% lymphocytes)
  - protein rate :0.72 g/l, CSF glucose/glycemia rate : 0.6
  - sterile bacterial, tuberculous and fungal cultures.
  - Soluble antigens in CSF : negative.

- white blood cell :7.500/mm^3 (neutrophils: 2.700/mm^3, lymphocytes: 4.000/mm^3), haemoglobin:13 g/dl , platelets count : 250.000/mm^3.

- Sedimentation rate : 48 mm , CRP : 120 mg /l
- Electrolytes, hepatic enzymes and creatinine : normal.

- Ampicillin 200 mg/kg per day during 10 days with good evolution.

- Control of CSF was normal

	Second episode	Third episode	Fourth episod
	One year later	2 months later	1 month later
Symptoms	febrile seizures Glasgow Coma score:10	meningitic syndrome	meningitic syndrome
CSF examination	*500 cells/mm^3 (90% of neutrophils) *protein rate : 1.2 g/l *CSF glucose/glycemia rate: 0.6 *culture: sterile *soluble antigens: (-)	*800cells/mm^3(60% of neutrophils) *protein rate:0.52 g/l *CSFglucose: 0.6 *culture: sterile	*220 cells/mm^3(90% lymphocytes) *protein rate:0.52 g/l *CSFglucose: 0.6 *culture: sterile
Treatment	Ceftriaxon 100mg/kg/day	Ceftriaxon 100mg/kg/day	Ceftriaxon Vancomycin
evolution	favorable	favorable	favorable
Control of CSF	normal	normal	normal

- HIV serology : negative.
- Complete ORL exam: normal
- Sinus radiography: normal
- Petrous bone computed tomography : normal

- Recurrent aseptic meningitis in young man without any locoregional cause

- What are your hypotheses for the diagnosis?

- Infection ?
  - bacterial (complement component deficiency , Immunoglobulin deficiency)
  - Syphilis, brucellosis, lyme's disease, whipple's disease
  - viral (HSV)
  - fungal (*Cryptococcus neoformans*)
- Tumoral origin?
- Drugs : nonsteroidal anti-inflammatory drugs , Antibiotics?
- Chronic inflammatory diseases: sarcoidosis, lupus, Familial Mediterranean fever, Still's disease, vasculitis ?

- Syphilitic serology in both blood and CSF was negative.
- Herpes Simplex Virus PCR (polymerase chain reaction) was negative
- Wright and Lyme serology were negative.
- Antinuclear antibodies were negative.
- C3,C4,CH50: normal
- Angiotensin converting enzyme:40 IU/l (normal:25-69)
- Magnetic Resonance Imaging of the brain showed no abnormality.

- During 6 months follow-up:

  - No meningitic syndrome
  - ***recurrent oral and scrotal ulcers.***
  - ***Pseudofolliculitis lesions***

- Diagnosis: Neuro-Behçet's disease
- Treatment: *oral prednisone: 1 mg/kg/day
  *colchicine 1mg/day
- Evolution: favorable
- Follow-up: 24 months

- Recurrent meningitis:
  - Different to chronic meningitis
  - Repeated episodes of acute disease followed by periods during which meningeal signs are absent and CSF parameters are normal
  - Etiological diagnosis often requires difficult investigations

- NeuroBehçet can be categorized into three main groups:
  - Parenchymal central nervous system (CNS) involvement:
    *hemispheral
    *spinal cord
    * meningo-encephalic manifestations
  - Nonparenchymal CNS involvement:
    *dural sinus thrombosis
    *arterial anevrysms
  - Peripheral involvement

- Meningitic presentation in Behçet's disease is rare.
- Its prevalence is not estimated.
- It can be acute, chronic or recurrent.
- Recurrent meningitis is exceptional, only six cases have been reported in literature
- 2 cases as initial manifestation of Behçet's disease
- No consensus for treatment
- Steroids, immunosuppressive therapy

Conclusion:

- Behçet’s disease deserves to be mentioned as a cause of recurrent meningitis and most attention must be paid to the slightest systemic signs in these cases, particularly in patients from the Silk Road.

Thank you for your attention