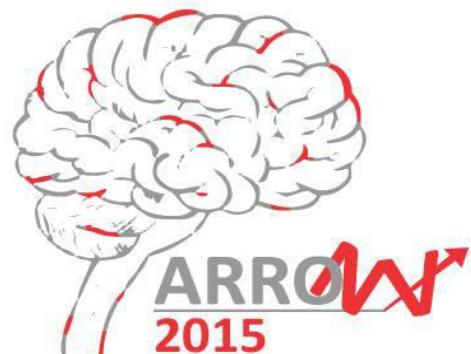


A challenging neurological complication in a young HIV-infected woman

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Assessment of Resources and Research Opportunities in HIV

ARROW 2015

Bucharest 5-6 October 2015

SSI, 26 year-old woman

- diagnosed with severe anemia in a Hematology department
- tested HIV positive

pale
mood disturbances

Hb 6.86 g/dL;
PL 79.400/mm³
CD4 cell count: 63/mm³ (4.6%)
VL: 1.808.674 copies/mL
(6.25log₁₀)

CD4 cell count: 192/mm³ (8.8%)
VL: 33 copies/mL (1.51 log₁₀)

anxiety,
auditory
hallucinations
partial seizures;
movement
disturbances
weakness of the
right body ,
ataxia

right upper arm
paresthesia
right upper arm
and lower limb
palsy

Neurological exam
generalized seizures
right hemiparesis, with crural
predominance, dysmetria
positive right Babinski sign

10.06

16.06

26.06

20.07

22.07

31.07

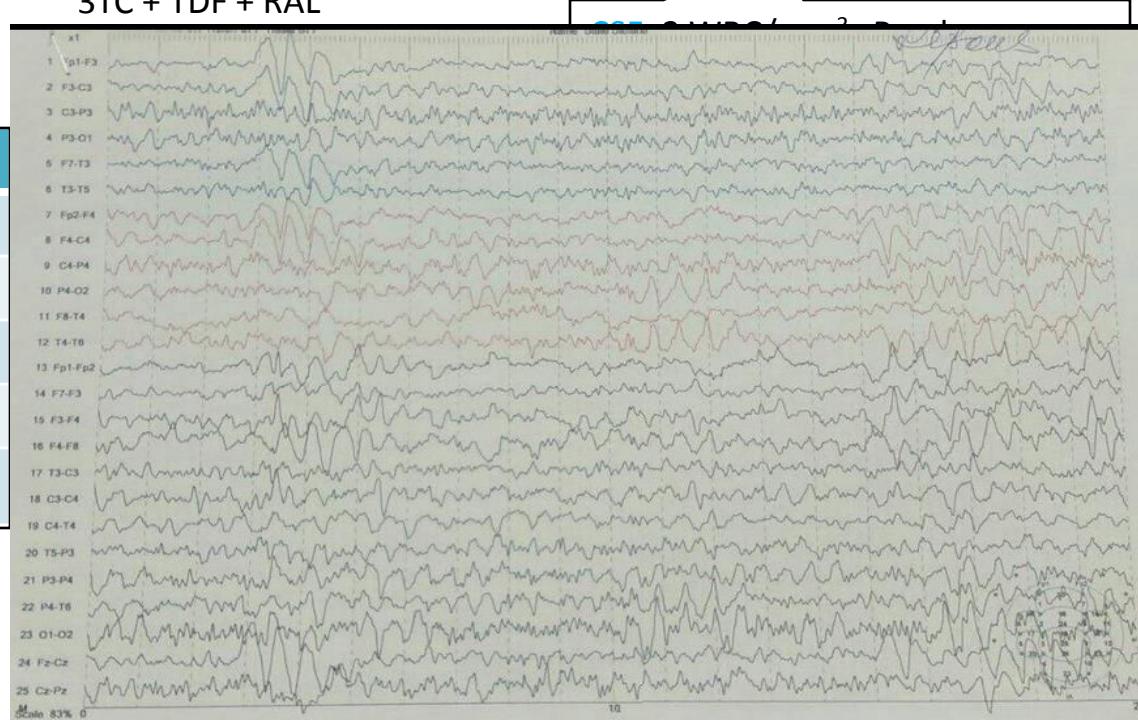
05.08

3TC + TDF + DRV/RTV

gastro-intestinal intolerance; rash

3TC + TDF + RAL

serology	plasma	serology	plasma
anti HIV	pos	Toxo IgM	neg
anti HCV	neg	Toxo IgG	neg
HBs Ag	neg	CMV IgM	neg
syphilis	neg	CMV IgG	pos
		HSV Ig M	neg



Differential diagnosis

Focal lesions

1. Infectious (bacteria, viruses, parasites, fungi)

- Cerebral toxoplasmosis
- Tuberculoma/tuberculous abscess
- Cryptococcoma
- CMV encephalitis – focal form (rare 5%)

2. Cerebral tumors

- Cerebral lymphoma
- Primary tumors: glioma; astrocytoma, meningioma
- Cerebral metastasis

3. Others

- Neurosyphilis
- Cysticercosis
- Bacterial abscess - Nocardia
- Aspergilloma

Diffuse lesions

1. Viral encephalitis

- HSV
- VZV
- CMV
- HHV 6
- measles

2. HIV encephalopathy

- high HIV viral load in CSF
- neurologic deficits with moderate progression

3. Progressive multifocal leukoencephalopathy (PML)

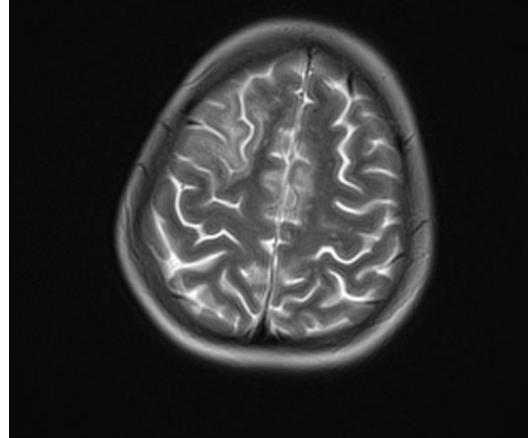
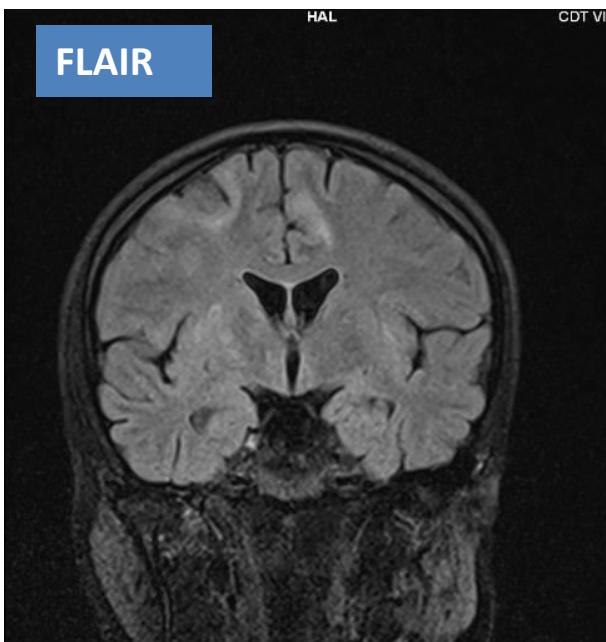
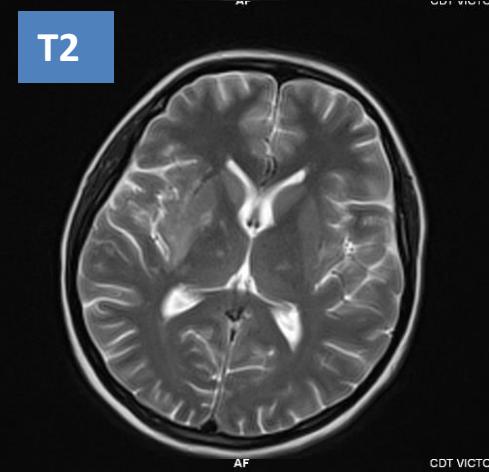
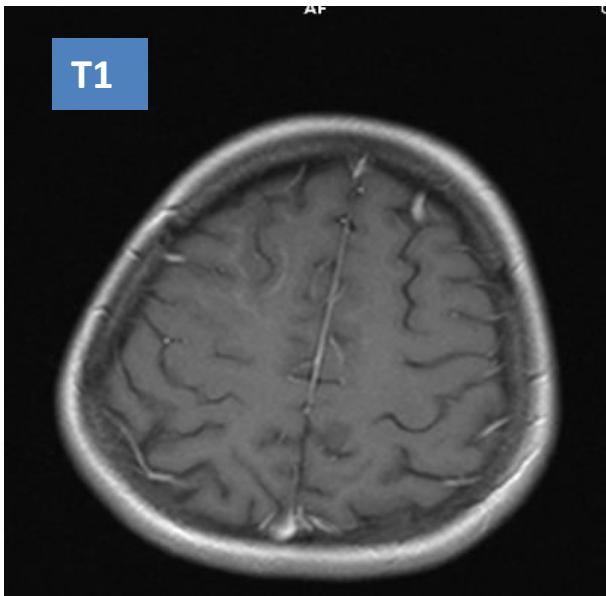
- positive PCR-ADN JCV in CSF

4. Immune Reconstitution Inflammatory Syndrome (IRIS) – PML

5. Diffuse bacterial/fungal meningitis

- Diffuse toxoplasmosis meningitis
- C. neoformans meningo-encephalitis
- TB meningo-encephalitis

MRI - 04.08.15



Differential diagnosis

Viral
encephalitis

HSV

Pros: - history of recurrent herpetic infections
- temporal lobe involvement with psychiatric symptoms
- focal motor deficit
- seizures
- MRI: T2 and FLAIR increased signal intensity in the fronto-temporal region

Cons: - no cingular lesions
- systematized delirium
- HSV serology in plasma & CSF - negative;
- negative PCR-ADN HSV in CSF

CMV

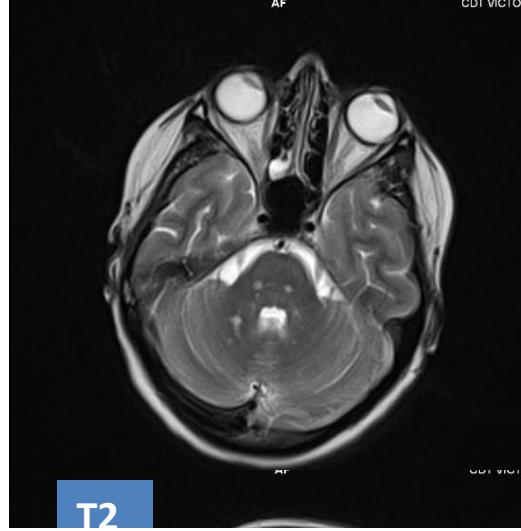
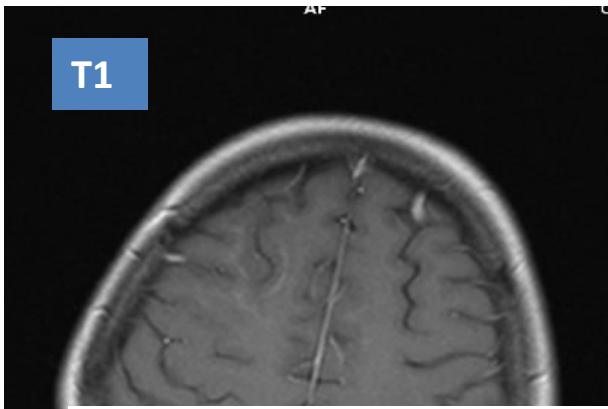
Pros: -positive serology in plasma
-focal neurological deficit
-seizures
-psychiatric manifestations

Cons: -negative serology in CSF
-negative PCR-ADN in CSF
-MRI: hyperintense T2 lesions in the white matter,
predominantly periventricular

Progressive multifocal
leukoencephalopathy (PML)

Pros: - progressive onset
- no fever; motor deficit
- neurocognitive disorders; seizures
- severe immunosuppression

Cons: - encephalitic symptoms
- first MRI imaging not typical for PML

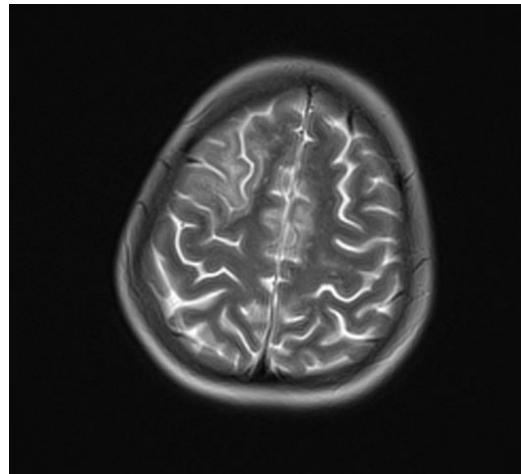
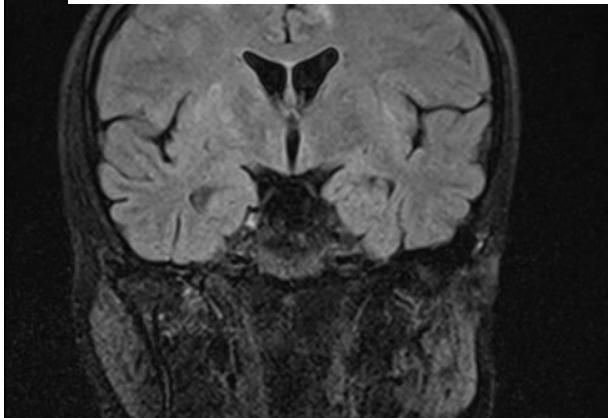


Viral encephalitis?

14.08: CSF: PCR-ADN CMV negative
PCR-ADN HSV negative
PCR-ADN MTB negative
PCR-ADN JCV positive

Treatment

- Acyclovir iv
- corticotherapy
- antiepileptic treatment: Valproate

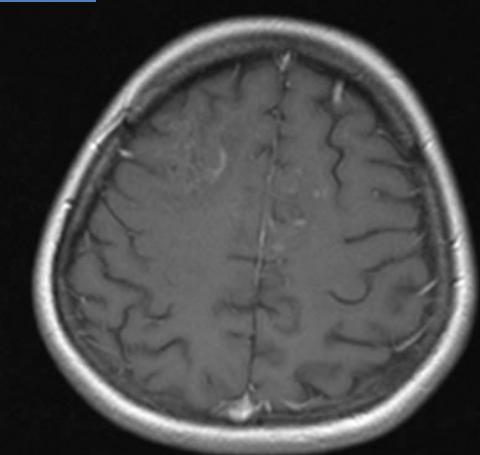


Evolution

- slightly improvement of the motor deficit
- important persistent psychiatric symptoms

MRI
03.09.15

T1



AF

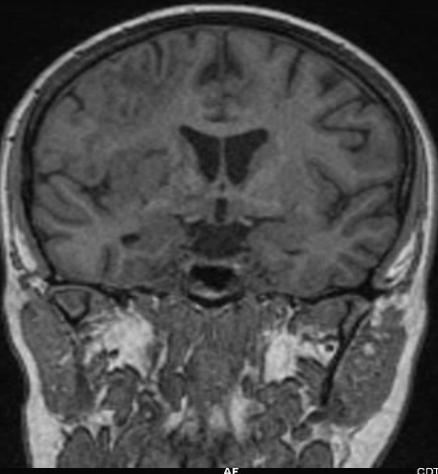
C

HAL

C

AF

04.08



AF

CDT VICTOR

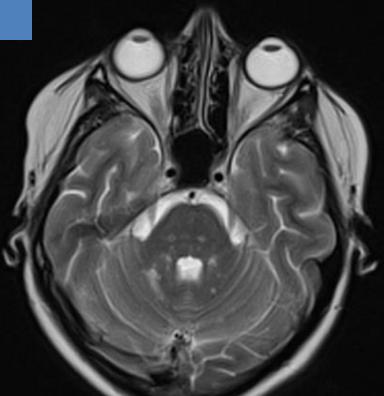
AF

CDT VICTOR

AF

CDT VICTOR

T2



HAL

CDT VIC

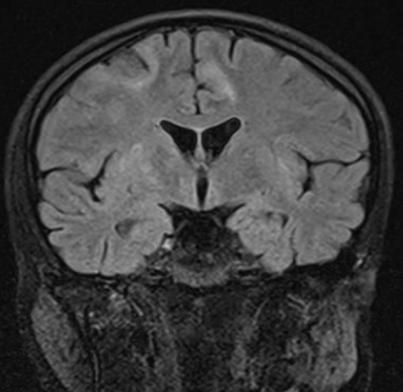
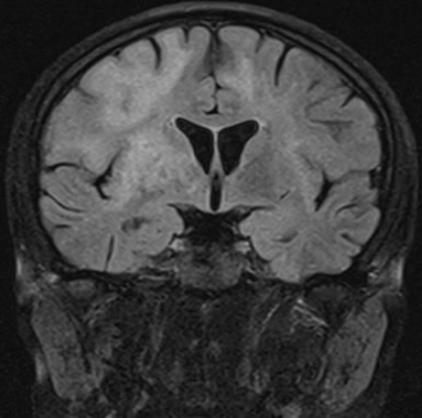
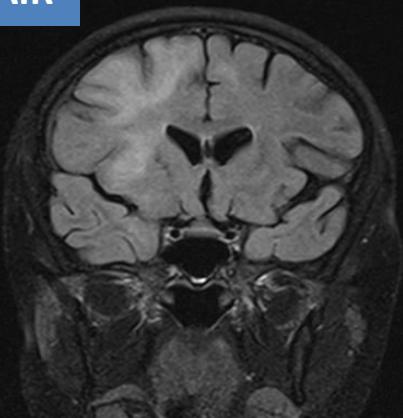
HAL

CDT VI

HAL

CDT VI

FLAIR



Differential diagnosis

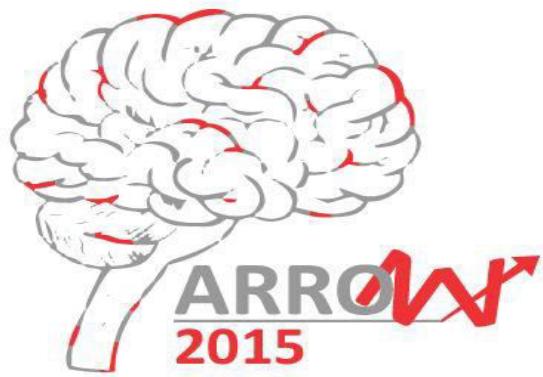
PML vs. IRIS – PML

PCR-ADN JCV positive in CSF

	Diagnosis: Unmasking IRIS – PML ?	Cons
PML	<ul style="list-style-type: none">-progressive, insidious onset-no fever	- encephalitic symptoms
IRIS PML	<h3>Particularities</h3> <ul style="list-style-type: none">• atypical onset• atypical MRI imaging• concomitant psychiatric disorders (related or not to the neurological lesions?!) <ul style="list-style-type: none">-more rapid clinical course than classic PML-significant response to corticosteroid therapy- MRI (second exam) - extension of the lesions predominantly in the white matter<ul style="list-style-type: none">- contrast enhancement	

Schizophrenia

Psychiatric associated disorders: Anxious syndrome
Depressive disorder



Assessment of Resources and Research
Opportunities in **NeuroAIDS**

Thank you!

