



Is a real PML? A case report

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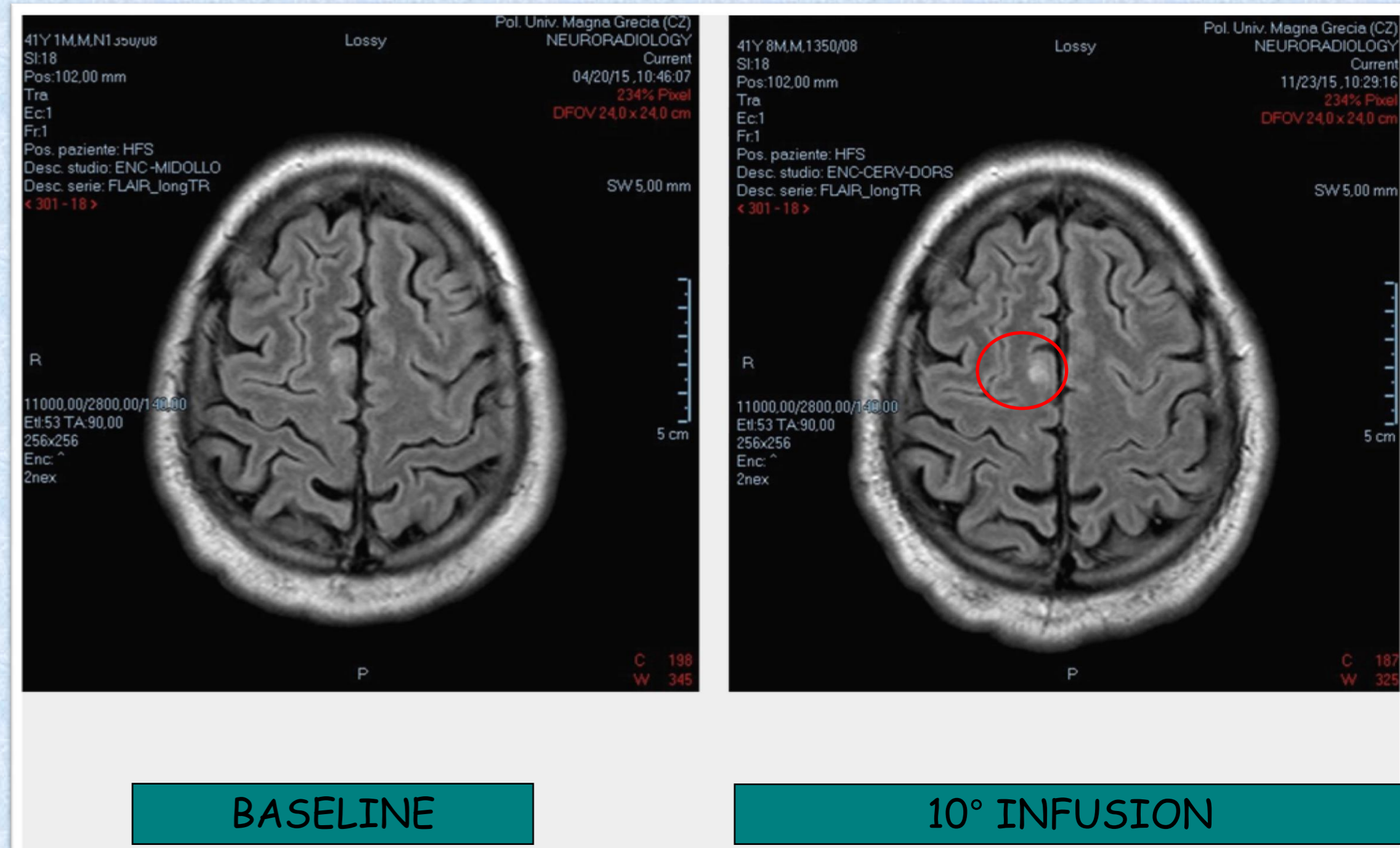
Introduzione:

Natalizumab (NTZ) is an efficacious therapy for patients with Relapsing-Remitting Multiple Sclerosis (RRMS) based on significant reductions in annualized relapse rate and risk of disability progression. NTZ is associated with an increased risk of Progressive Multifocal Leukoencephalopathy (PML). This risk becomes higher with antibodies anti-JCV positivity, especially with index > 1.5, previous use of immunosuppressant drugs and duration of NTZ treatment > 2 years.

Case Report:

A 42-year-old male with RRMS previously treated with interferon beta 1b, Azathioprine and then Mitoxantrone, was started with NTZ. JCV antibodies status test was positive with index 1,523. Patient had clinical and radiological stability when, at 10th infusion, a routine MRI showed a dimensional increasement of an old frontal sub-cortical lesion, without gadolinium enhancement. The patient reported also difficulties about faces recognition. NTZ treatment was stopped immediately. He repeated: MRI, unchanged from the previous; PET-MRI normal; neuropsychological examination reported a pathological score in Benton Facial recognition test, when the performance in the other tests were similar to a baseline evaluation; liquor features normal but JCV- DNA test with PCR was positive (11 DNA copies). No treatment was done but clinical and radiological follow-up was programmed. During 6 months after the suspension, the patient showed radiological relapse at 5° and 6° month.

TEST	PUNTEGGIO GREZZO	PUNTEGGIO CORRETTO	V.N.	ESITI
MMSE	28		>24	Norma
Riconoscimento volti ignoti	33		>37	Deficit
Memoria verbale R.I.	36	29.2	>28.53	Al limite
Memoria verbale R.D.	8	6.1	>4.69	Norma
Fluenza verbale	27	21.5	>17.35	Norma
Test di Stroop	54	40.25	< 36.92	Deficit
Funzioni esecutive (WEIGL)	10	9.6	>9.9	Al limite
Fig. Rey Copia	27	25.4	>23.76	Norma
Fig. Rey R.I.	17.5	12	>6.44	Norma
Fig. Rey R.D.	15.5	10	>6.33	Norma



Patient ID:		Sampling date:	18-DEC-2015
Patient first name:		Unilabs Receipt Date:	28-DEC-2015
Patient last name:		Reporting date:	30-DEC-2015
Date of Birth:	15-MAR-1974	Unilabs lab no.:	2015531325
Sex:	Male		

Result	Unit
JC Virus DNA	copies/mL
Result Comment	
11 Detected	
Result 11LOQ(1084 copies/mL) provided as scientific info only	

Discussione e Conclusioni:

According to literature, a definite diagnosis of PML requires clinical, imaging and virological evidence. The patient has showed a monofocal neurological deficit relating cognitive sphere and a dimensional increasement of a frontal sub-cortical lesion, without gadolinium enhancement, highly suspected of a natalizumab-associated PML.

In spite of positivity to JCV-DNA in CSF examination, this was for a low copy number. Although JCV- DNA test with PCR has high sensibility and specificity for PML, it was reported a low copy number of JCV in 2 of 515 CSF samples from patient without PML. Probable reasons of this false-positive result are JCV viremia that can occur healthy individuals or any contamination of CSF with blood. In light of this rare occurrence and according to clinical and radiological stability at follow up, our experience is that the detection of low viral copy numbers of JCV in CSF without clinical or imaging findings to suggest PML, must be interpreted cautiously.

Bibliografia:

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