



A liver transplant recipient with Multiple Sclerosis: challenging comorbidity

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Introduction

Progressive multifocal leukoencephalopathy (PML) is a demyelinating disease of the central nervous system occurring almost exclusively in immunosuppressed individuals. Even if reports of PML in solid organ transplant recipient are limited, it must be considered in the differential diagnosis of a new onset neurological symptom both in the early and in the late post-transplant period. Among Multiple Sclerosis (MS) patients cases of PML has been associated with treatments that reduce the immune response within the central nervous system. Magnetic resonance imaging (MRI) is a fundamental tool for PML diagnosis for its characteristic findings, even in a presymptomatic phase

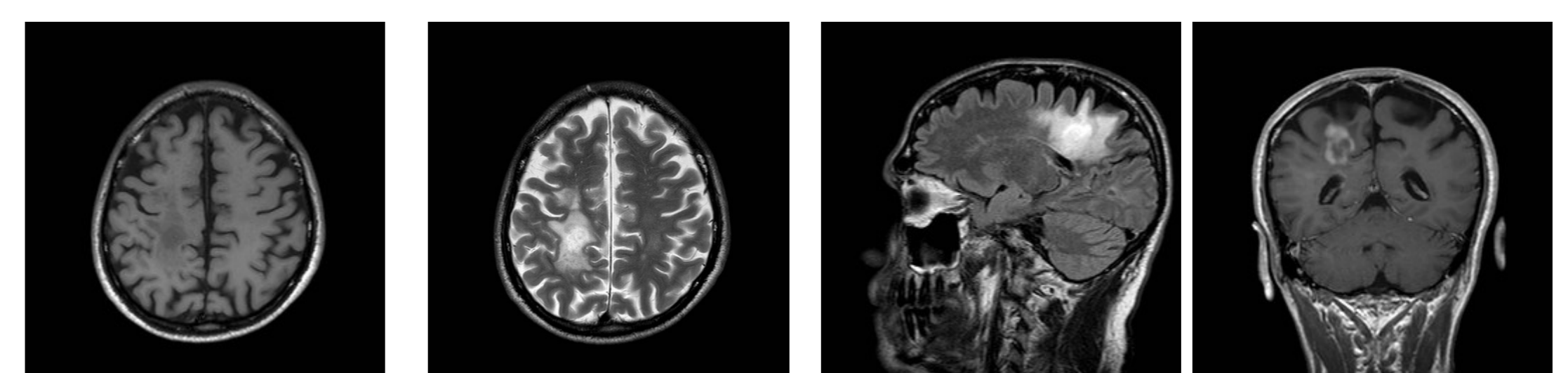
Aim

We report the case of a liver transplant recipient also affected by MS who subacutely developed a new neurological symptom with neuroradiological findings difficult to discriminate between a MS relapse and PML

Case report

- **63 year-old man**
- At the age of 32 ys diagnosis of **MS**, but no disease modifying therapy for the benign course of the disease
- In 2014 orthotopic deceased-donor **liver transplant** for **hepatitis-C-virus-related decompensated liver cirrhosis** → in therapy with **cyclosporine A**
- He came to our attention in March 2016 for a **progressive left-sided weakness in a few days**

MRI at onset

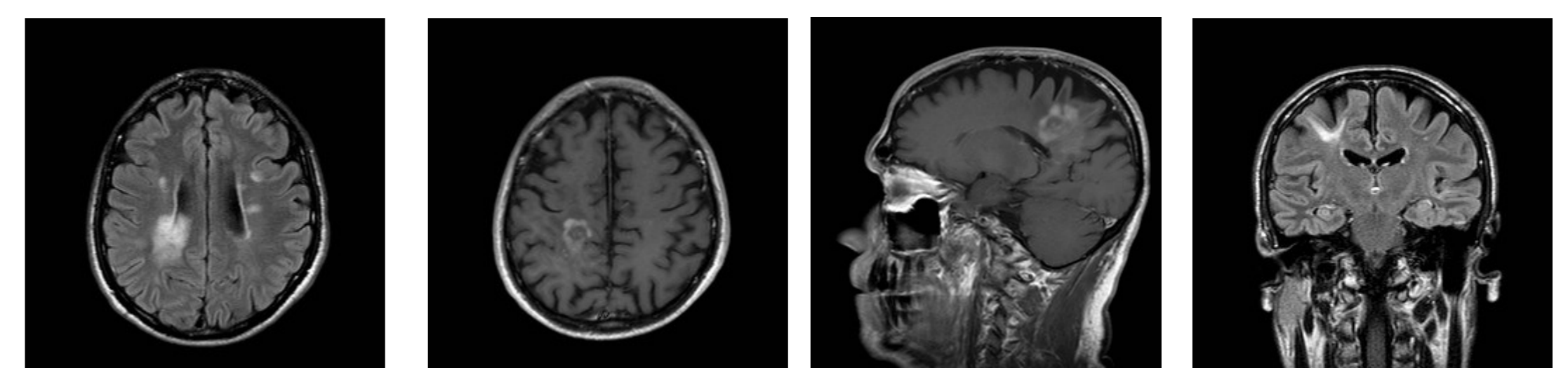


T1W

T2W

FLAIR

T1 Gd



FLAIR

T1 Gd

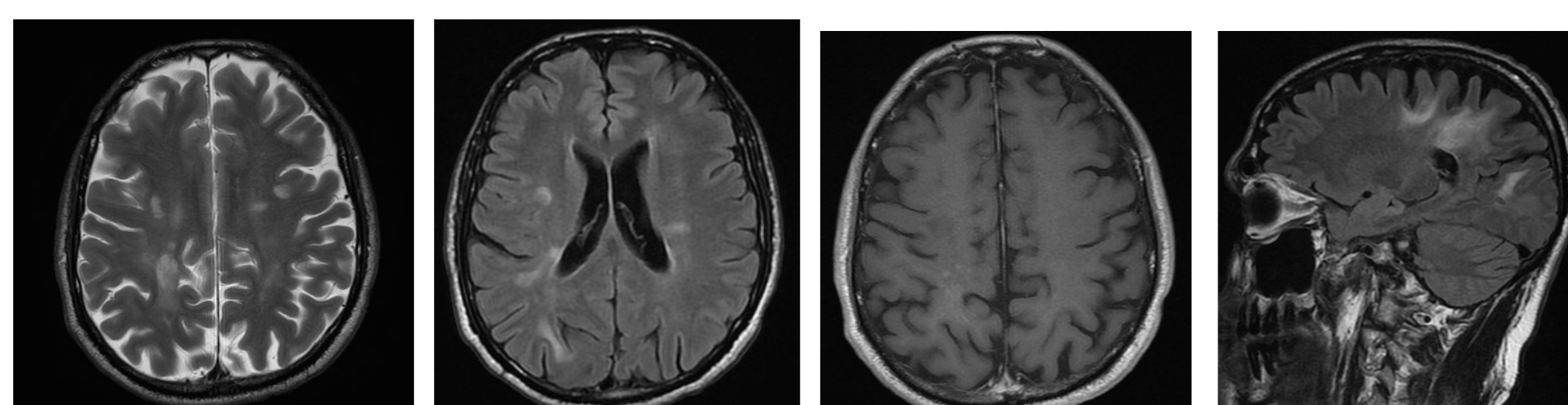
T1 Gd

FLAIR

PML or MS RELAPSE?

MRI at follow up

At 1 mo.



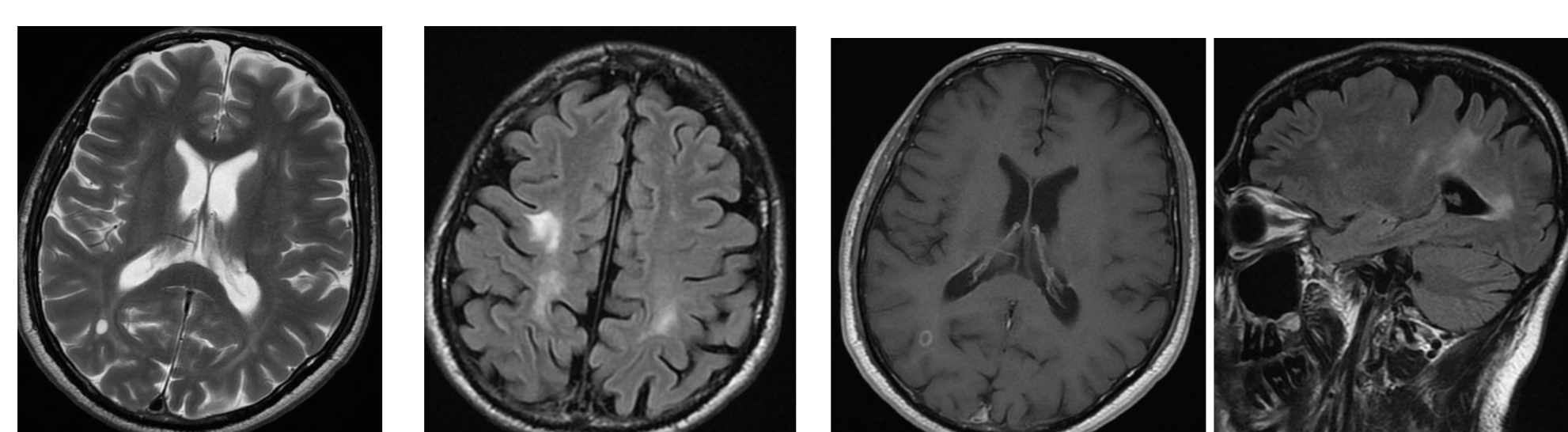
T2W

FLAIR

T1 Gd

FLAIR

At 3 mos.



T2W

FLAIR

T1 Gd

FLAIR

- Complete blood count, biochemical and infectivological analyses were normal
- **JCV DNA negative in CSF**
- Absence of neurological deterioration

A possible MS relapse → treatment with Methylprednisolone 1 g iv for 5 days with regression of the symptoms

Conclusions

The differential diagnosis of new neurological symptoms and MRI findings in a patient with MS who is taking an immunosuppressant drug for other comorbidity could be very challenging and an integrated collaboration between neuroradiologist and other clinicians is needed to ensure the best management of the patient

REFERENCES

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