IS IT JUST A BRAIN ISCHEMIA? A CASE REPORT

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Introduction

This case report aims to show the importance of the neurological methodology to achieve the right diagnosis in clinical practice. Neuroimaging can lead to a wrong diagnosis if not compared with the patient's anamnesis.

Presentation of case

A 75-year-old woman with 10-years history of chronic lymphocytic leukemia (LLC), was admitted to our department for a progressive aphasia. For this reason she was already hospitalized one month before and the first MRI showed a left temporal-parietal lesion in the middle cerebral artery's area, interpreted as a subacute brain ischemia. Therefore she started ASA (acetylsalicylic acid) and underwent corticosteroid therapy with an initial clinical improvement of the aphasia. However, when corticosteroid therapy was stopped, the aphasia worsened again. She presented in addition fever and headache, so she was admitted to our hospital. The EEG showed sharp waves, sometimes with pseudo-rhythmic waves, mainly in the temporal lobe. We performed a new brain MRI showing left subcortical temporal-parietal involvement without increased DWI signal and neither contrast enhancement. However we noted also small white matter areas with increased DWI signal, scattered in both hemispheres. Since there were no grey matter alterations, as we would expect from a large ischemic lesion, we wanted to rule out other possibilities, so we decided to perform the lumbar puncture. CSF was clear and colorless with 10 cells/μL white blood cell, protein 48 mg/dl (n.v. 10-45) and glucose ratio CSF/serum 42,6% (n.v. >45%). Bacteriological and virological screenings were negatives except for one: JC Virus with a quantitative PCR more than three millions copies/mL.

Discussion

Progressive multifocal leukoencephalopathy (PML), in a patient with LLC, was the right diagnosis. The patient couldn't start chemotherapy for the LLC because of concomitant pneumonia. She started levetiracetam and corticosteroid therapy with a mild improvement in verbal comprehension and in words repetition. The clinical evaluation of the neuroimaging compared to the patient's anamnesis led to the proper diagnostic strategies and to the final diagnosis.

Conclusion

Based on our case and literature review, we recommend to consider PML as a possible differential diagnosis and evaluate the possibility of performing lumbar puncture for JCV in immunodeficient patients with white matter lesions.

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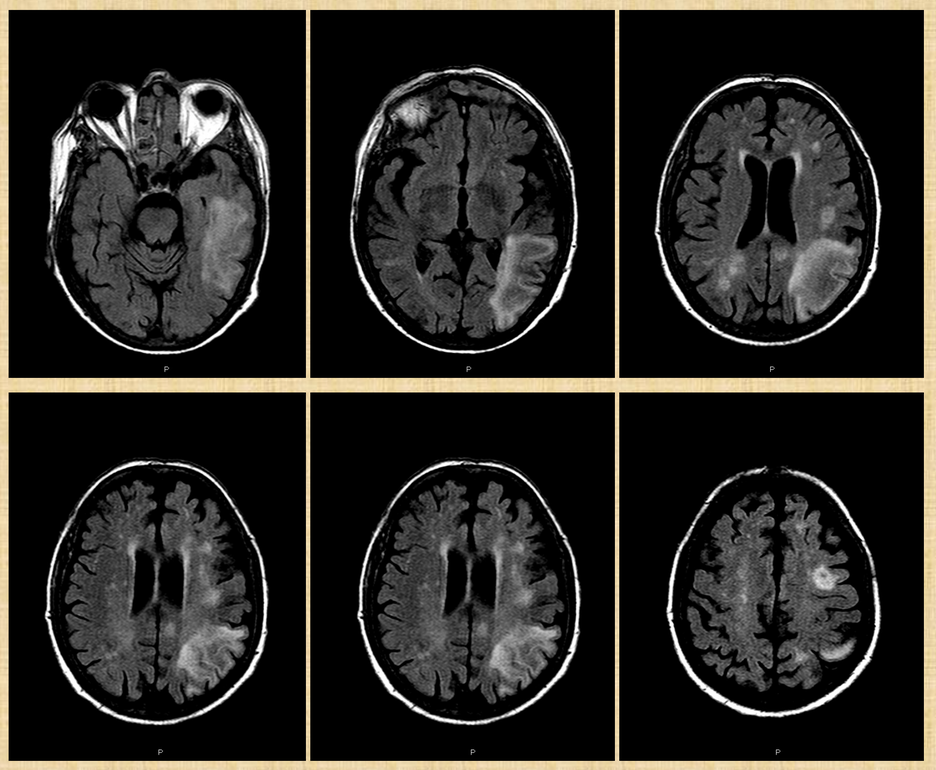

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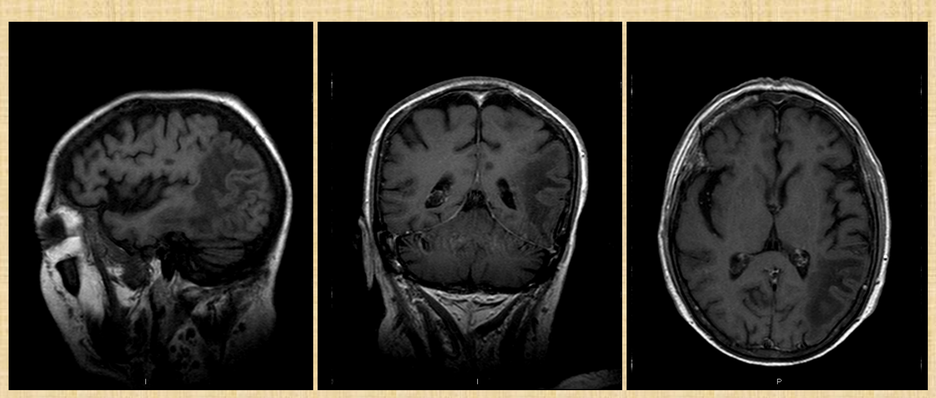

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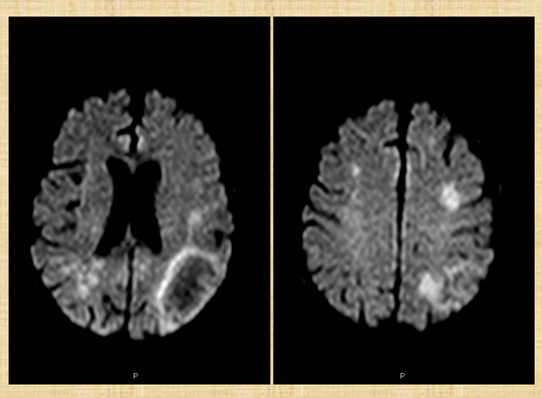

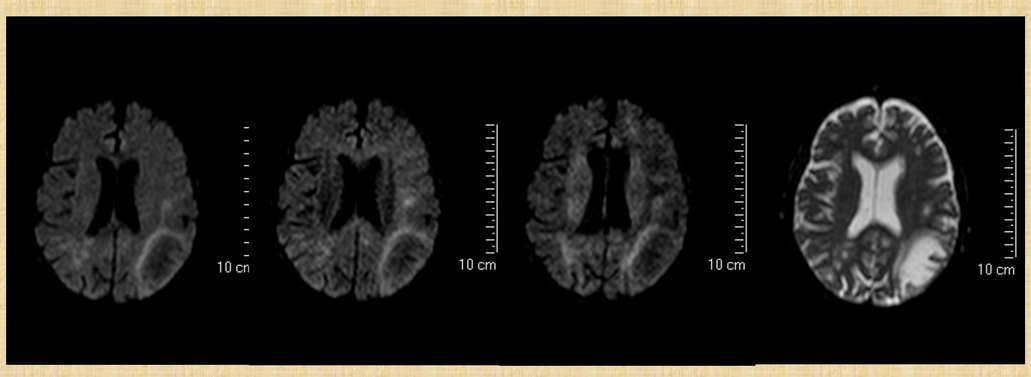

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