Multiple Sclerosis and Brain Tumors, a Challenging Diagnostic- case reports

Authors: Sirbu CA*, Plesa CF*, Caloianu I**, Sirbu OM***

*Central Military Emergency University Hospital, Clinic of Neurology, Calea Plevnei street 134, -Bucharest, Titu Maiorescu University, Dâmbovnicului street, 22, Bucharest, Romania
** Saint Lukas Clinic, Calea Plevnei Street, no 137C, Bucharest,
***,,Bagdasar-Arseni" Emergency Hospital-Neurosurgery Clinic, Bucharest , Berceni street 12, Bucharest 041915

Introduction. If patients with multiple sclerosis (MS) who are developing brain tumors over time are quite rare, cases with patients with brain tumors who are subsequently diagnosed with multiple sclerosis are exceptionally. We present two such different cases with difficult diagnosis.
Case report 1: A 26 year old male, with Relapsing Remitting Multiple Sclerosis (RRMS) and clinical onset at 12 years age (vestibular syndrome), was admitted for IFNB-1b treatment in 2007. In 2014, we considered another relapse because the patient presented unsteadiness, vertigo, malaise, ataxia. The lack of clinical remission after Methylprednisolone, determined us to perform a brain MRI. A right cerebellar and vermis desmoplastic nodular medulloblastoma, T3a stage was found (as a result of a biopsy).
Case report 2: A 21 years old woman has an abrupt onset of right ataxic hemiparesis. Brain MRI showed a large lesion (3,3/2cm) with contrast enhancement, in left periventricular white matter. Blood and CSF analyses were unequivocal. A stereotactic brain biopsy confirmed a grade II Astrocytoma-fibrillary subtipe. After chimio and radiotheraphy with good evolution, a veritable relapse occured 6 year later . Because the new MRI lesions fulfill the McDonald criteria she was diagnosed with RRMS.
Discussion: The difficulty of differential diagnosis between a new relapse and another pathology was due to the absence of a MRI examination as a standard practice for every relapse. On the other hand, a patient with brain tumor who develops MS after chimio and radiotherapy is a rare case, rising a lot of questions. This might be due to the effect of radiotherapy on blood brain barrier and immune system.
Conclusion: MS and brain tumors, may have a quite variable profile, and for that reason they might simulate or conceal other central nervous system pathologies. Follow-up MRIs on yearly basis, represent a good clinical standard at least for RRMS patients.

Literature.

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