

Tuberculous meningitis in a person with radiologically isolated syndrome (RIS): a case report with implications for clinical research.

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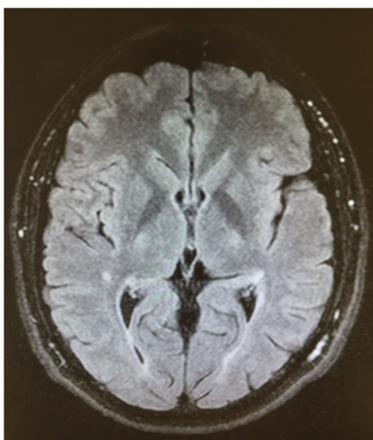
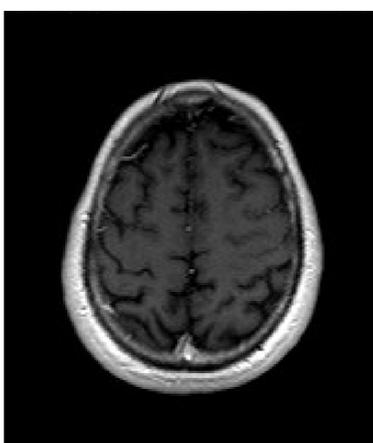
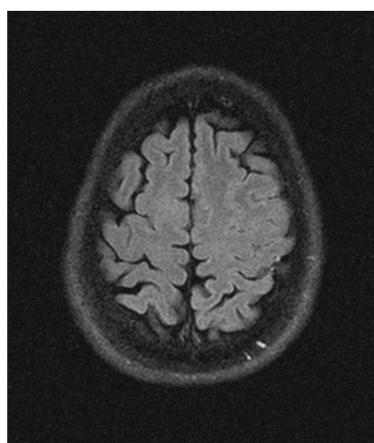
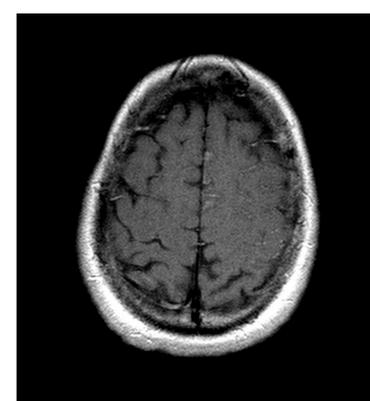
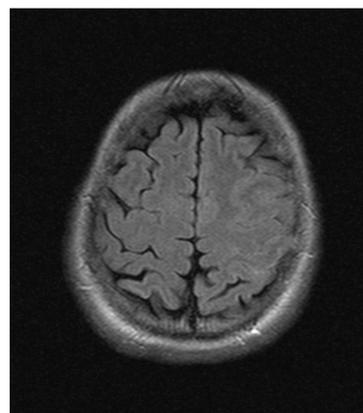
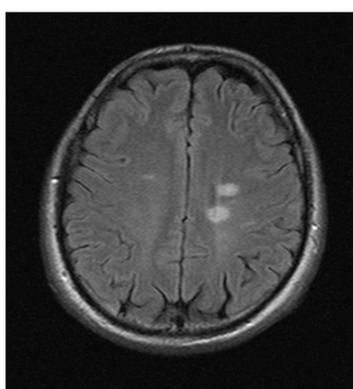
Introduction and Objective:

Do concomitant infections (or vaccinations) influence the course of multiple sclerosis (MS)? This is a relevant question given: i. the impact that theories such as the “hygiene hypothesis” may have on our understanding of MS; ii. the consequent and possibly successful attempts of influencing the disease course with Bacille Calmette Guerin (BCG) vaccine; iii. The overall safety of vaccination procedures in MS.

Describe a case of probable tuberculous leptomeningitis, occurring in 39 year-old man with a RIS.

Materials and Methods:

This patient was followed with brain and spinal cord MRIs after the occasional detection of brain and spinal cord abnormalities compatible with RIS. During this follow up, left frontal meningeal enhancement became apparent with edema of the frontal and parietal lobes. He was therefore hospitalized.



Results

Cerebrospinal fluid was clear, contained 22 cells/mm³, glucose 64 mg/dl, protein 54.1 mg/dl. Immunoelectrophoresis showed an increased of albumin (294 mg/L), IgG (161 mg/L) and Link Index (1.9), with 17 oligoclonal bands. Microbiological examination of CSF (microscopy and bacterial culture for common germs and BK, PCR for viruses neurotropic and BK, direct search for cryptococcus antigen and culture) was negative. The Mantoux Intradermal reaction and quantiferon test resulted positive (>4; n.r. 0.00-0.35). The patient underwent a cycle of 21 days of therapy with acyclovir and then started prophylaxis with rifampicine and isoniazide for four months, until a new MRI showed the disappearance of the leptomeningeal enhancement, and the stability of white matter brain and spinal cord lesions. He was then followed with serial MRIs. Nine months after anti-tubercular therapy discontinuation a new MRI showed a new brain Gd-enhancing lesion and after additional six months new cerebral and spinal cord areas appeared

Discussion

A single case report, also with some uncertainties about the diagnosis of tuberculosis, does not allow to draw firm conclusions about the effects of the infection and related therapies on the underlying autoimmune status. For sure, the infection, while actively present, did not exacerbate the RIS condition. The worsening after nine months from anti-tubercular therapy discontinuation might have been a remote effect of the infection, of isoniazide or the result of the clearance of the infection itself. Also the lack of any relationship with these concomitant events cannot be excluded. Conclusions: It is important to collect experience on cases of MS-related diseases and concomitant infectious conditions since this effort may provide answers to important questions about disease pathogenesis and treatment