A case of probable neurosarcoidosis presenting with multiple cranial nerve lesions on MRI

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INTRODUCTION. Sarcoidosis is a systemic disease of unknown cause with several symptoms of presentation. It may affect any organ system, although the involvement of the lungs, skin, and lymphnodes is most frequently observed. The involvement of CNS occurs in about 5% of cases presenting as leptomeningitis, cranial nerve palsy, paresthesias, pyramidal signs or dementia.

MATERIALS and METHODS. We report a case of a 66-year-old female who suffered of consciousness disorder, unstable walking and gradually also developed a reduced visual acuity on the right eye and right-side face weakness. Neurological examination identified multiple cranial neuropathy (II, V, VII, VIII nerves). Laboratory tests showed high white blood cells count (19.640/mm) and abnormal levels of C-reactive Protein and the cerebrospinal fluid (CSF) analysis revealed mononuclear pleocytosis (55 cells/mm3). The serum and CSF value of the angiotensin converting enzyme (ACE) was normal. The patient was treated with Methylprednisolone (1000 mg/day for five days) and a tapering course of oral Prednisone (25 mg/day).

MRI FIDINGS. The MRI of the brain initially showed many lesions enhancing with contrast involving mammillary bodies, prechiasmatic segment of the right optic nerve and left acoustic-facial package (fig.1). An MRI control, carried out six months later, showed the disappearance of the lesions (fig.2) whereby the steroid therapy was reduced. Five months later, during the patients taking 25 mg/day of prednisone, new enhanced lesions emerged in right and left acoustic-facial packages, in the cisternal portion of trigeminal nerve bilaterally and in brainstem (fig.3,4,5,6). Therefore, a more intensive steroid therapy was administered so all the lesions had resolved after two weeks.

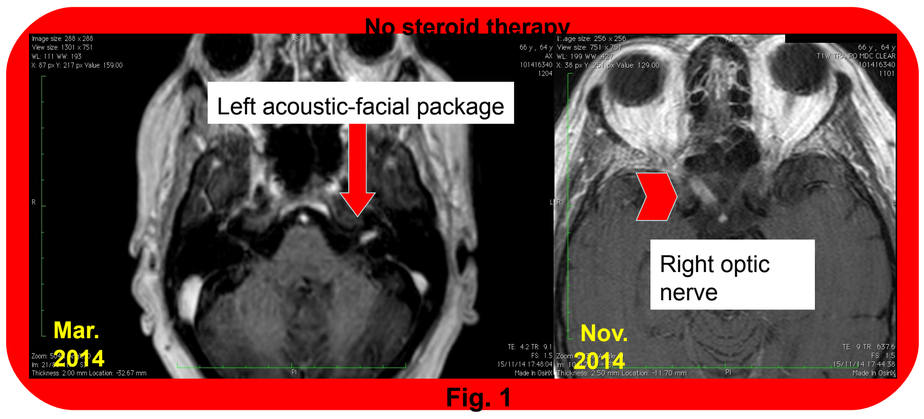

Fig. 1

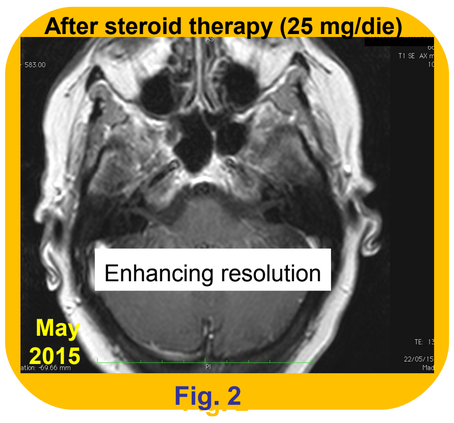

Fig. 2

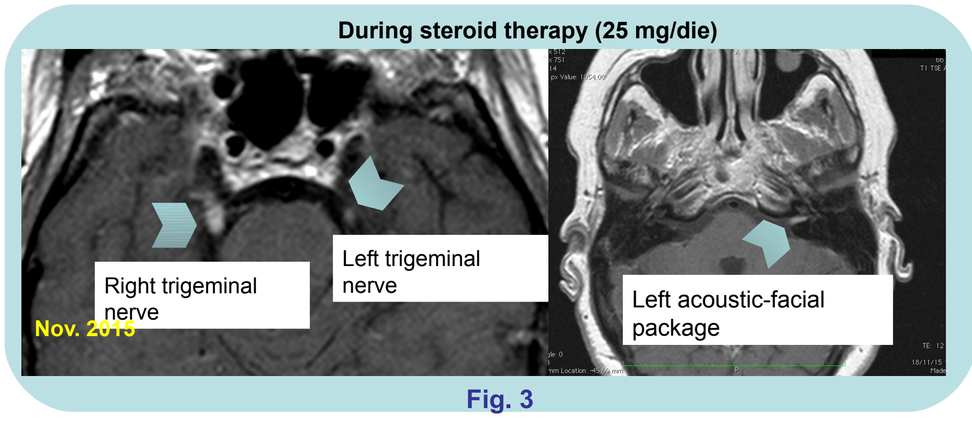

Fig. 3

During steroid therapy (25 mg/die)

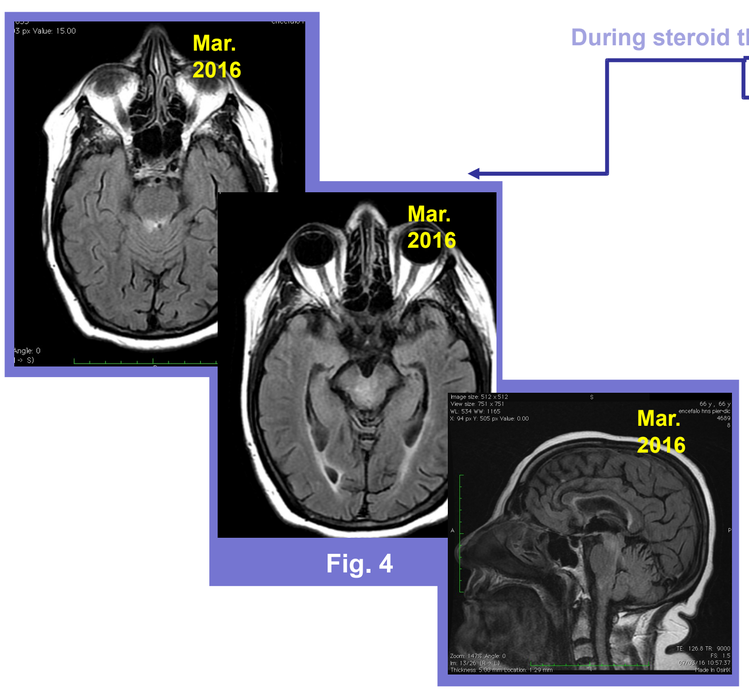

Fig. 4

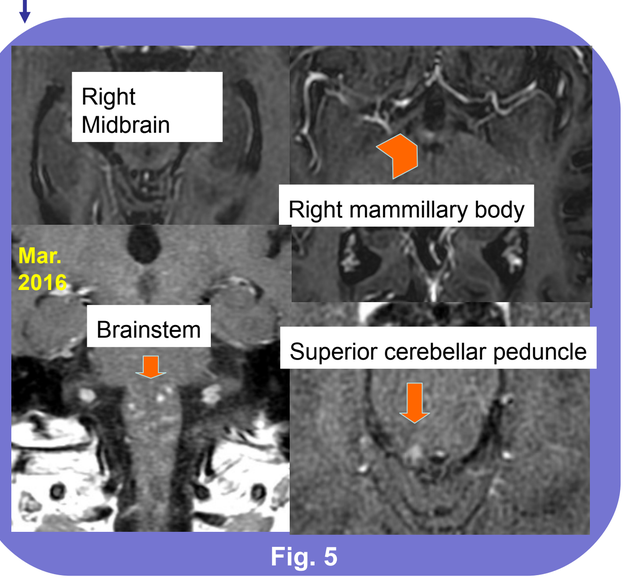

Fig. 5

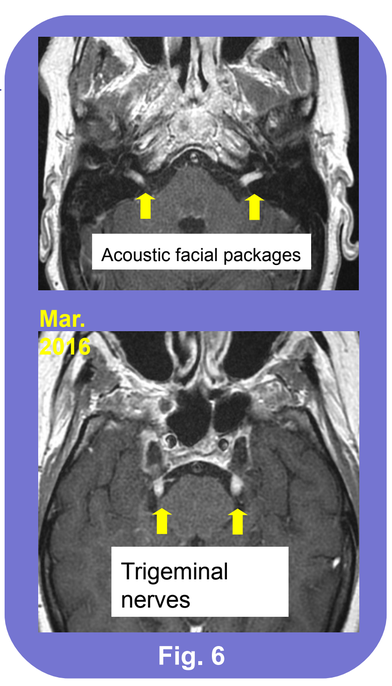

Fig. 6

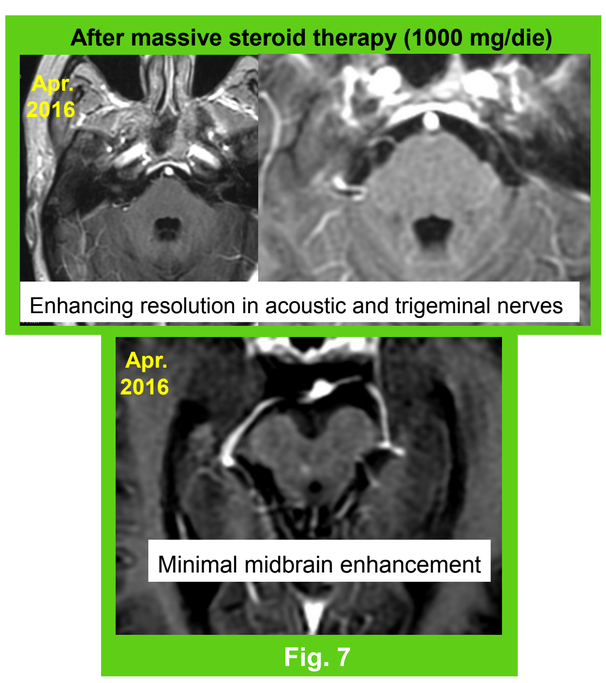

Fig. 7

CONCLUSIONS. Our case suggests to consider isolated neurosarcoidosis as a potential underlying aetiology in case of clinical and MRI signs involving multiple cranial nerve simultaneously.

References

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