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Cluster Headache and Multiple Sclerosis: a difficult relationship

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Introduction

Cluster headache (CH) is the most prevalent trigeminal autonomic cephalalgia, characterised by attacks of severe unilateral orbital and/or temporal pain, lasting from 15 to 180 minutes associated with omolateral autonomic symptoms. Generally neuroimaging is normal in patients with CH, however in 3-5% of patients an intracranial lesions may be discovered, defining **a cluster-like headache (CLH) condition**. In Multiple Sclerosis (MS) patients headache occurs more frequently than in general population and the most reported headaches are migraine without aura and tension-type headache. CH is a rare condition and the association with MS is also very infrequent.

Aim

We present a case of a young woman with a cluster-like headache as the first and only clinical manifestation of Multiple Sclerosis

Case report

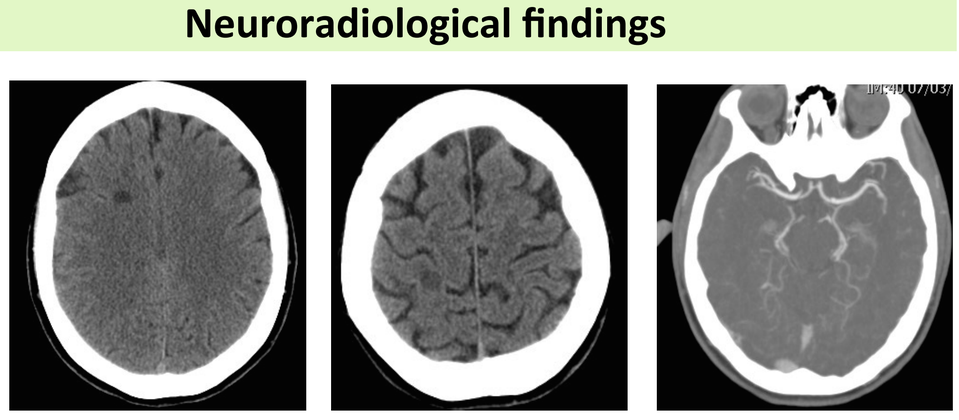
- **26-year-old woman**
- **Medical history**: early puberty at 8 years-old, pharmacologically delayed
- **Symptoms at onset**: a two-week period of paroxysmal severe pain, located in the right orbital and temporal regions, associated with omolateral conjunctival injection, lacrimation, nasal congestion, ptosis and facial numbness in all three branches of the right trigeminal nerve territory. The pain lasted 10-30 minutes and occured 5-8 times in 24h.
- **Neurological examination**:
  - superfical hypoaesthesia regarding all the branches of the right trigeminal nerve and the right limbs
  - nystagmus in her eyes upward
  - brisk deep tendon reflexes.

- **CSF analysis**: IEF positive for oligoclonal bands (profile 2)
- Complete blood count, biochemical and immunoserological analyses were normal, except for elevated TSH, elevated anti-thyroid's antibodies, ANA+1:320.

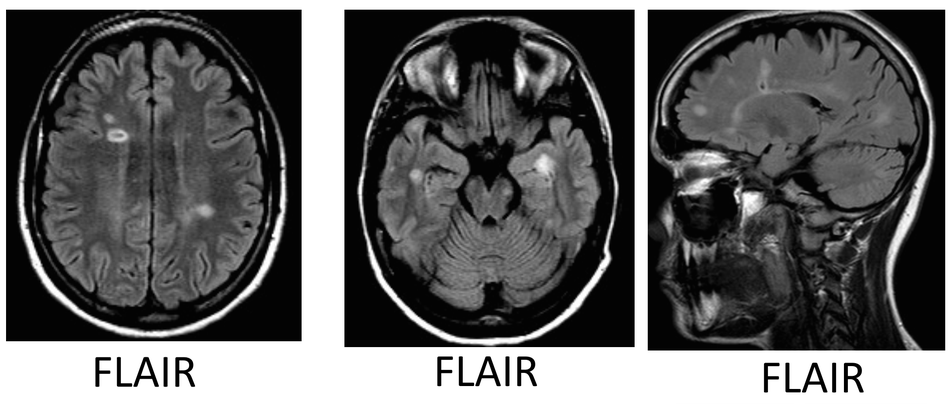
Treatment: methylprednisolone 1 g iv per day for 5 days, tapering per os with complete regression of the headache

Neuroradiological findings

CT



MRI



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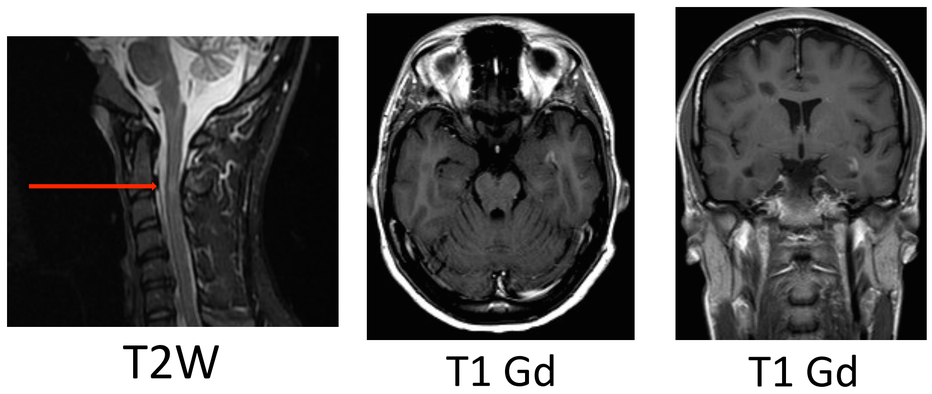

T2W T1 Gd T1 Gd

Conclusions

This case suggests caution in patients with symptoms of CH and abnormal neurological examination. In these cases, especially if an abnormal neurological examination is present, a neuroradiological assessment is useful in order to exclude an underlying pathology.
We could consider cluster headache as a possible onset symptom of MS syndrome. This consideration could be supported by the role of the MS lesions in the the trigeminovascular pathways.

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