RED FLAGS IN A PROTOTYPICAL CASE OF VZV-VASCULOPATHY.

Azienda Provinciale
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Introduction.

Zoster is a well-known risk factor for stroke. Varicella zoster virus (VZV) can infect cerebral arteries after re-activation. VZV-vasculopathy is challenging because of heterogeneous and evolving phenotype and possible unfavourable course without prompt treatment. We report a prototypical case.

Case Report.

History.

A 84-year-old healthy and **immunocompetent** woman referred to emergency department because of **confusional state during fever**. In the emergency room she presented a **tonic-clonic seizure of left limbs** followed by **persistent vigilance impairment, left side hemiparesis with anesthesia and right-forced gaze version**.

During previous month she suffered **right ear pain and deafness** without local rash and **progressive cognitive impairment**.

Investigations.

- **Head CT scan**: right medial frontal hypo-density.
- **EEG**: background slow activity with frontal sharp waves. (A)
- **Otoscopy**: a **recent right middle ear acute otitis**.
- **Carotid** and **heart ultrasound**, **ECG**: unremarkable.
- **Blood exams**: unremarkable except for mild elevation of C-reactive protein and leucocytes.
- **Cerebrospinal fluid (CSF) standard exam**: 3 lymphocytes and normal protein and glucose concentrations
- **Polymerase chain reaction (PCR) for neurotropic viruses**: **positive for VZV-DNA**.
- **Brain MRI**: hyper intensity in the territory of right anterior cerebral artery (ACA) on DWI and FLAIR sequences (B-C') suggestive for acute ischemic stroke associated with intralesional focal hypo intensity on GRE sequence (D, D') suggestive for small intralesional hemorrhagic foci. After gadolinium injection vessel **irregularities of the right ACA** on angio MRI (F) and **diffuse post-gadolinium leptomeningeal enhancement** on T1 sequences (E, E').
- **Intracranial vessel angiography**: **irregularities of right anterior cerebral artery tract 1 and 2**. (G)

Treatment.

Parenteral Acyclovir (3 ws), Methylprednisolone (5 ds) and Levetiracetam 3g/d, associated to long-term Aspirin 0.1g/d.

Clinical course.

At three-months follow-up, patient well oriented with mild gaze impairment and left side hemiparesis.

Conclusions.

We diagnosed acute ischemic stroke due to focal vasculitis of the right ACA (VZV-vasculopathy) in a patient with VZV meningo-encephalitis.

VZV-vasculopathy should be suspected not only in stroke patients with history of Zoster but also in atypical stroke presentations associated with a recent evolving cranial neuralgia or encephalopathy. Immunosuppression is not a prerequisite especially in older patients. VZV-DNA search on CSF should be performed.

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