Postvaricella vasculopathy presenting with acute ischemic stroke and proximal intracranial vessel dissection

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INTRODUCTION

- Post Varicella Zoster Virus (VZV) vasculopathy is a rare cause of stroke, most likely in children than in adults.
- Immunosuppression is a risk factor to develop post-VZV arteriopathy, typically affecting the distal segment of the internal carotid artery and the proximal segments of the middle cerebral artery (MCA).
- **Here, we present a HIV-positive adult patient presenting with acute stroke related to Post Varicella Zoster Virus (VZV) vasculopathy.**

CASE REPORT

- A 36-year-old HIV positive female, without antiviral treatment, was admitted to the Emergency Room after acute onset of the right hemiparesis and aphasia. NIHSS score was 18.
- Hyperdense MCA sign was found on non contrast CT (NCCT). An angio-CT revealed subocclusion of the left proximal segment of the MCA (M1) (Figure 1).
- A bridging therapy was started with intravenous rtPA followed by an endovascular procedure which revealed a M1 stenosis vs dissection of M1 requiring permanent stenting.

FIGURE 1 : CT scanner : Subocclusion of left M1

FIGURE 2 : Angiography : Subocclusion of left M1 M2

FOLLOW-UP

- CSF examination revealed
 - mild pleiocytosis (22/mm3)
 - a positive VZV PCR.
- Blood tests revealed
 - A low CD4 count (144)
 - a high number of HIV copies (>1.000.000).
- A treatment with intravenous aciclovir and oral anti-retroviral therapy was immediately started.
- Evolution was favourable with a NIHSS at discharge of 1 (mild aphasia).

DISCUSSION

- Varicella zoster virus (VZV) is a neurotropic, exclusively human herpesvirus.
- Primary infection causes varicella (chickenpox), after which the virus becomes latent in ganglionic neurons.
- Immunosuppression may provoke a reactivation of latent infection.
- The mechanism of VZV-induced cerebral vasculopathy is not clear, probably by direct infection of artery walls inducing disruption of the internal elastic lamina and possibly arterial dissection.

CONCLUSION

- In our patient, HIV infection with low CD4 count due to poor compliance may have caused the reactivation of latent VZV infection.
- Stroke may be due to VZV induced dissection or focal vasculitis of M1 as encountered in children.
- In patients with proximal vessel occlusion and a history of HIV infection, CSF examination should be considered.

Bibliography:

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