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Unilateral third nerve palsy with anti GQ1b antibody positivity, an atypical manifestation of Miller-Fisher syndrome.

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Introduction: Miller-Fisher Syndrome is a rare syndrome commonly manifests with ophthalmoplegia, ataxia and areflexia, typically associated with anti GQ1b antibody positivity [1]. In some patients MFS presents with incomplete forms, such as acute isolated ophthalmoplegia without ataxia, acute ptosis, acute mydriasis, or acute ataxic neuropathy [2-3].

Objectives: To report a case of MFS exclusively presenting with acute onset of a complete 3 rd cranial nerve paralysis.

Clinical presentation: A 78-years-old man was admitted to our hospital for blurred vision, diplopia and ptosis in the right eye acutely occurred ten days before. Twenty days before, he presented a right ophthalmic zoster treated with topical acyclovir until complete regression of the vesicular rash and pain. He was a smoker, HCV positive, hypertensive and diabetic with a mild sensorimotor axonal polyneuropathy. Clinical examination revealed a complete 3 rd cranial nerve paralysis of the right eye. Left eye was normal. Pain, chemosis, and lacrimation were absent. Deep tendon reflex were hypoactive in the upper and lower limbs and achilles reflexes were absent. No other neurological deficits were observed. At laboratory investigations there was an increase of erythrocyte sedimentation rate (42 mm/h), HbA1c was 6.6%, strong positivity of VZV IgG. The thyroid function was normal. In the suspicion of a possible infective or immunomediated cause we performed lumbar puncture: cerebrospinal fluid (CSF) analysis showed a mild albumino-cytological dissociation (protein concentration of 100 mg/dl with 2 WBC/mm3) end serum samples were analyzed for anti-gangliosides antibodies with detection of an elevated title of anti-GQ1b IgM. PCR on liquor was negative for neurotropic virus with elevated IgG anti-VZV in CSF. MRI of the brain showed a picture of widespread chronic vascularity. Angio MRI was normal. There was no evidence of intramuscular injury to suggest a tumor or infiltrative lesion nor inflammatory changes at orbital level.

Conclusion: The clinical report confirms that MFS can sometimes presents with incomplete forms. In clinical practice, the immune-mediated neurological disorders are often underestimated or misdiagnosed, while they should be always considered in the differential diagnosis, in order to choose an appropriate treatment.

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