PROGRESSIVE PRIMARY FORM OF MULTIPLE SCLEROSIS

Clinical and radiological improvement with methylprednisolone in continuous pulsetherapy in one case for 16 years

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Multiple sclerosis (MS) might be considered as a disease with different clinical phenotypes. Approximately 10–15% of the patients have the primary progressive form (PPMS). Confavreux and Vukusic considered PPMS as a multiple sclerosis ‘amputated’ from the usual preceding relapsing-remitting phase, saying it as one disease with different clinical phenotypes rather than an entity encompassing several distinct diseases¹. The treatment of MS is directly based in animals’ models. However there are no proven benefits in humans². The inflammatory nature of MS suggests that endogenous cortisol, which is under control of the hypothalamus-pituitary-adrenal (HPA) axis, plays a role in the course and susceptibility of MS. Insensitivity to glucocorticoids might lead to enhanced inflammation in MS, whereas hyperactivity of the HPA axis has been linked to neurodegeneration and increase disability. Variability in the glucocorticoid receptor gene is a potential explanation for differences in glucocorticoids sensitivity and may influence the disease course³. We have shown the benefit of methylprednisolone in continuous pulse therapy (IVMP) in PPMS⁴. The improvement of the clinical course and radiological findings in one patient of our group with the PPMS form motivated us to relate this case.

CASE

A 38 year-old woman was admitted in 1992, and her disease initiated 13 year ago with a slowing progressive difficult to walk, incoordination in upper limbs and urinary incontinence for fourteen years. She had spastic paraplegia, brisk tendon reflexes, bilateral Babinski signs, decreased vibratory sensation in lower limbs, tremor and dysmetria in upper limbs and a left deafferentated pupil. We excluded Vit B12 deficiency, syphilis, schistosomiasis, HIV, HTLV1 and 2, degenerative diseases, cervical spondilosis and others. The spinal fluid showed an elevated IgG index. She presented PPMS, according to McDonald’s criteria⁵.

Table. EDDS evolution in course of treatment:

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<tr>
<td>EDDS</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>3</td>
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<tr>
<td>IVMP (intervals of days)</td>
<td>10</td>
<td>20</td>
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<td>30</td>
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IVMP: intravenous methylprednisolone

DISCUSSION

There is no approved treatment for the PPMS. Nevertheless, some important clinical benefits have been observed after treatment in progressive forms with high-dose methylprednisolone alone⁶,⁷ or with cyclophosphamide⁸. There is consensus that IVMP is considered the...
standard treatment for relapses in MS and prevents or delays disability progression\textsuperscript{10} and brain MRI showing less T\textsubscript{1} black roles, with less marked atrophy and few gadolinium enhancements\textsuperscript{10,11}.

Our patient presents PPMS, according to McDonald’s criteria\textsuperscript{5}. Initially she hardly walked alone, and the EDDS was 6. After continuous IVMP there was improvement in the next years. In 2004 she became stable. Actually she walks alone, without cerebellar and sphincter disturbances with mild paraparesis. There was no incoordination in upper limbs and no urinary incontinence. The initial EDSS that were 6 improved to 3.

Comparing the initial MRI (1996 and 1997) with the latest ones (2005, 2006 and 2007) there is some improvement in the lesions. The number of the multiple bright signals is lower in the white matter (Fig 1A,B), there is no more
post-contrast enhancement (Fig 2A,B) and the diffuse cortical atrophy seen in 1996 became less marked (Fig 3A,B).

In our case the continuation of IVMP therapy maintained the previously acquired clinical benefits. There are few undesirable or collateral effects concerning to the chronic use of IVMP. We concluded that continuous IVMP may be one kind of treatment for PPMS and that is necessary a multicentric study with this therapy.

REFERENCES