



# Acupuncture and Multiple Sclerosis: A Follow-Up for Fourteen Years



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## Abstract

**Introduction:** The lack of a standard treatment leads many Multiple Sclerosis (MS) patients to Complementary and Alternative Medicine. Acupuncture is one of the most searched of these treatments, although there is no strong evidence of its effectiveness.

**Case presentation:** This paper relates an 14-year follow-up of a female patient, aged 46, addressing the role of acupuncture in the control of symptoms such as numbness, pain, fatigue, stress, and depression and how this could affect her quality of life, in her own words. We suspected that her symptoms responded directly proportional to the frequency of sessions because in the last Magnetic Resonance Imaging (MRI) she did not present new lesions.

**Conclusion:** We are aware that MS is very unpredictable, and these achievements could be a consequence of the natural history of the disease, but we would like to call attention for the use of acupuncture.

**Keywords:** Multiple sclerosis; Acupuncture; Acupuncture therapy; Quality of life; Fatigue; Depression; Case report

## Introduction

Multiple Sclerosis (MS) is an autoimmune disease of the central nervous system, with no effective treatment to date. It is characterized by the presence of inflammatory foci of demyelination throughout the brain and spinal cord, followed by axonal and neuronal damage [1]. The cause is unknown; however, both genetic and environmental components play an important role and interact to produce disease susceptibility and influence its course of evolution [2]. Because of the unpredictability of the disease, lack of standard treatment and presence of collateral effect of drugs used, patients seek Complementary and Alternative Medicine to manage the MS symptoms, and acupuncture is one of the most sought [3]. This is a report of a patient followed-up during a 14-year treatment with acupuncture.

## Method

We conduct a semi-structured interview with Mrs. A, 46 y.o, female (15 years being diagnosed and undergoing acupuncture treatment for the last 14 years), about her expectations, experiences and how the results affect her quality of life. Mrs. G agreed to the protocol and signed the "Free Written and Informed Consent." She was assured her identity would be preserved. The study was approved by the local Ethics and Research Committee.

## History

By the ages of 20 and 21 (1991/92), she presented two episodes

of transitory lack of strength, which disappeared without sequels. After ten years, she had numbness, lack of sensibility, difficulties of motor coordination in the lower limbs, difficulty to walk, urinary incontinence, mild difficulty in speaking, and short episodes of double vision. Pain, depression, and fatigue became important events. In 2003, she was diagnosed, by MRI, with MS and started treatment with  $\beta$ -interferon (for three years) when she decided, on her own, to stop medication and stay only with acupuncture, which she had initiated six months after diagnostic.

## Examination

In the first medical consultation (09/01/2003) she presented mild numbness in her left fingers and feet (her muscular reflexes were kept), muscular tension in the trapezius and posterior muscles of the neck, and complained of headache, insomnia, and fatigue; score 1.5 in the Kurtzke EDSS Scale (Expanded Disability Status Scale). She was very upset and weeping, had problems at work and with her 16-month son. She has been taking antidepressants for the last 5 months.

## Treatment

Manual acupuncture was initiated using homeostatic points like LI4, P6, St36, Lv3, SP6, Intan (in the middle of eyebrows), and Du20. GB20, UB10, UB31, and UB33 were used once they are regions with parasympathetic predominance, and the last two are indicated in urinary incontinence.

## Results

The first ten sessions were twice a week, and ten more once a week, with great relief of cephalgia, neck tension, and insomnia, and the withdrawal of antidepressants. Symptoms of numbness decreased slowly.

After a 4-week break symptoms returned, we returned to weekly sessions for six months with the improvement of symptoms. By reducing the sessions, neurological symptoms tended to return after three or four weeks, although the tension, insomnia, and fatigue have remained controlled. In all these years, the sessions were kept as following: the greatest spacing possible with no recurrence of symptoms. In all this period, the patient presented only four numbness outbreaks in her feet (average of 10 days), which hindered her gait, plus a 5-day episode of urinary incontinence in 2015. She has never exceeded 2.5 in Kurtzke EDSS. In the last interview, we did not notice neurological deficits, although she presented a minimal difficulty to move her legs (2.0 Kurtzke EDSS). Muscle mass was somewhat diminished, but without fasciculation or spasticity. She reported moments of intense sadness, and depression, which she overcame without antidepressants. Four MRI were performed (2003; 2004; 2006 and 2010). In all of them little and multiples lesions in the periventricular white substance and corpus callosum were found, with no significance difference between them, but while in the first three were found contrast-enhancing lesions-an indication of new lesions-it did not happen in the last one.

### Box 1. The Patient's Report

"After 3 years of specific treatment for MS, I decided on my own to stop-because I was tired of the side effects, and I was not improving. I stayed with acupuncture without stopping it. MS has changed my life because of tiredness, body aches, limited mobility, and coordination, especially of my legs and feet. Moreover, it is very difficult to deal with this whirlwind of new information and symptoms that did not exist before, what made me feel extremely sad, depressed and with crying spells. So for me, without acupuncture it would not have been possible to get better from MS and its symptoms because it was essential to treat depression, improved my quality of life to resume sensitivity and improved motor coordination, pain and limited mobility, allowing me to be independent, attend gym, work, driving, among other activities.

I plan to continue with acupuncture, which is important to improve many symptoms, but mainly because it prevented new outbreaks and symptoms to arise or that the disease became considerably worse, and it was necessary to resume the standard medicines, which I have not been taking since 2006. Symptoms took many months to improve. There were an increase and/or full recovery of sensation in my arms and legs in addition to the disappearance of numbness; improvement of balance, urinary incontinence, sensitivity of the tongue, lack of desire, fatigue, muscle pain, weakness, irritability, stress and depression. The latter two are the symptoms in which acupuncture treatment was more effective. Finally, acupuncture did not bring me any adverse or negative effect."

## Discussion

We have been following Mrs. A for fourteen years, and we do not know another published study, which did that. We had good results with pain, tension, depression, fatigue and a chronic sinusitis and we went along with her second pregnancy, normally a stressful moment for a patient with MS [4]. We suspected that her neurologic symptoms responded directly proportional to the frequency of sessions and albeit the MRI did not show any differences in number and size of lesions, the last (2010) showed no contrast-enhancing and this plays a key role in the management of MS [5]. However, we may not credit this last issue to acupuncture, or at least to the specific effects of needling [6]. The basic characteristic of MS is unpredictability. Of course, we know this may be a normal evolution. In the meantime, other authors also treated many of those symptoms. Fatigue, one of the most common symptoms in MS, relevant and persistent in our patient, had good results elsewhere [7-9]. Pain that occurs 55% throughout the disease [10] were also controlled in an Randomized Control Trial (RCT) with 16 patients after weekly sessions with electro-acupuncture [11], and in 49 patients receiving manual acupuncture biweekly, in a case-series study, both for a 6-month period [12]. Increases in urinary incontinence, weakness, depression, and numbness were related to a patient treated by scalp-acupuncture [13].

However, we could wonder that the best effect was achieved against depression and stress, very frequent symptoms where acupuncture may be a good tool, mainly in severe maladies [14-16]. As our patient, many others seek acupuncture, and are satisfied, despite the limited amount of evidence. New studies, well designed, are welcome. However, doctors and other health professionals should be aware of the possibility of acupuncture bring important benefits to patients. Our work calls for attention about this possibility.

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