

Utilization of Extremely Low Frequency (ELF) Magnetic Fields in Chronic Disease; Five Years Experience: Three Case Reports

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We present three examples of the use of ELF magnetic therapy, two cases of multiple sclerosis and one of chronic pulmonary disease. In each of the two MS cases the Seqex device was applied as an adjunct to antioxidant medication two times a week for six weeks. Radiological and MRI examination indicated improvement in the two MS patients and stabilization in the patient with obstructive pulmonary disease following merely five treatments.

Keywords COPD; Dyspnoea; ICR; Low frequency electromagnetic therapy; Multiple sclerosis.

Magnetic field therapy has traditionally been used for orthopedic pathologies. In the last few years a number of studies have demonstrated utility in other diseases, particularly in neurology.

Starting in 2001 electromagnetic field therapy using high and low frequencies have been used in our Institute, either alone or more often associated with pharmacologic therapies, for various pathologies. We describe three cases of diseases in which ELF (extremely low frequency) therapy is associated with good results. The specific method is that of ion cyclotronic resonance, applied using the Seqex device. In all three cases therapy consisted of 2 applications per week, a total of 12 applications, with every application 30 minutes long.

First Case

41 year old man with radiologic diagnosis of multiple sclerosis (brain and spinal cord lesions); Examination revealed **high values of oxidative stress**. His symptoms

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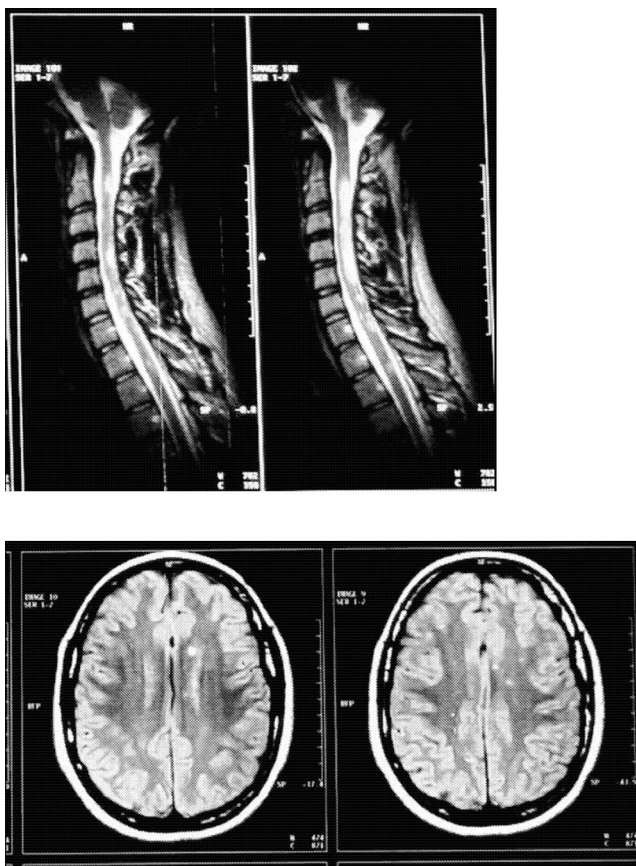


Figure 1. Radiological and MRI Exams, respectively, before and after treatment.

were cervical and lumbar pain associated with right leg mild functional impotence. Therapy consisted of supportive care with antioxidative products and ELF therapy; range of frequency was 10–30 Hz and range of intensity was 10–25 microTesla.

At the end of treatment there was a **significant improvement of symptoms**, with the last MRI revealing significant reductions in dimensional and activity of lesions.

Second Case

23 year old woman with radiologic diagnosis of multiple sclerosis (brain and spinal cord lesions, Fig. 1) with strong neurological deficits. Examination showed very **high values of oxidative stress**. For the past year she had been treated with interferon and the disease was stable.

Therapy consisted of **energetic antioxidative treatment** and ELF therapy with frequency range 10–20 Hz and intensity 20–30 microTesla.

The last MRI showed very significant reduction of dimension and activity lesions, particularly cervical ones (Fig. 2).

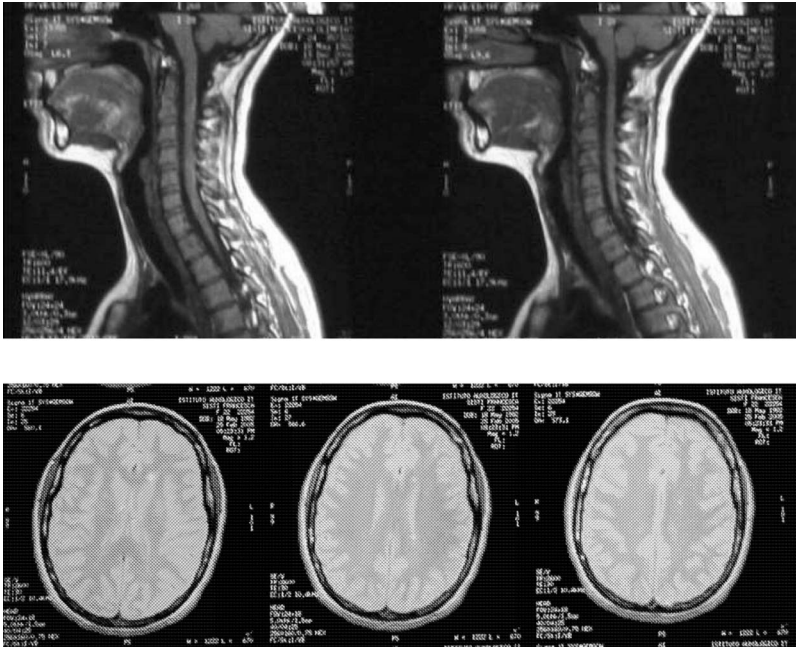


Figure 2. Radiological and MRI Exams, respectively, before and after treatment.

Third Case

70 years old man affected by **chronic obstructive pulmonary disease** contained with bronchodilators and corticoid therapy over several years. His major problems were dyspnoea and night breath loss.

After five applications the patient showed an improvement in sleep quality and quantity (more sleeping hours and a reduction in night breath loss). Dyspnoea was reduced.

Therapy involved the frequency range of 40–45 Hz and the intensity range of 70–90 microTesla.

At the end of the treatment cycle there was improvement of breathing parameters and quality of life. Disease was radiologically stable.

Summary

In all three cases adding ELF therapy to pharmacological treatment improved quality of life. Radiologic improvement was noted in the first 2 cases and stability in the third case.

We consider these as very good results, as measured in terms of prognosis, emotional aspects, and the social cost attached to these degenerative chronic diseases. Furthermore, treatment was well tolerated and without collateral effects.

We believe that ELF therapy can be a valid therapeutic option in integrated therapeutic strategies. The possibility for adding treatments at home makes this option more interesting.

In every case it is important to thoroughly study aspects concerning synergism, biologic tissue interaction and parameters standardization. We hope that these studies will be continued in a controlled trial.