Osteopathic manipulative treatment in multiple sclerosis: a proof of concept study

Cellerino M1, Armezzani A2, Veroni J2, Pardini M1, Sassos D1,2, Infante MT1,2, Tacchino A3, Lapucci C1, Calabro’ V1, Ciullo L2, Nourbakhsh B4, Uccelli A1, Cordano C1,2,3,4

1 Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health (DINOGMI) - University of Genova, IRCCS AOU San Martino-IST – Genova; 2 IEMO - European Institute for Osteopathic Medicine - Genova, Italy; 3 FISM - Italian MS Foundation, Scientific Research Area - Genova, Italy; 4 Department of Neurology - UCSF - San Francisco, CA, United States

Bibliography


We evaluated the effects of OM on chronic symptoms of multiple sclerosis (MS). Twenty-three MS patients were randomly assigned in a 1:1 ratio to either an OM treatment (OMT) (N=13) or a sham treatment arm (N=10). All subjects at the same weekly time points underwent evaluation of clinical disability, quality of life, depression, fatigue and anxiety, using respectively Extended Disability Status Scale (EDSS), MS Quality of Life Instrument (MSQLI), Beck Depression Inventory (BDI), Modified Fatigue Impact Scale (MFIS) and Beck Anxiety Inventory (BAI). We used linear regression models to compare the change from the baseline value of each outcome between the intervention and control groups at different time points.

We demonstrated OM should be considered in the treatment of MS patients’ chronic symptoms

BACKGROUND

Osteopathic medicine (OM) is a form of drug-free, safe and non-invasive manual treatment, which uses a manual approach to diagnose and treat ‘somatic disfunctions’, with a demonstrated potential immune-modulatory effect.

METHODS

We evaluated the effects of OM on chronic symptoms of multiple sclerosis (MS). Twenty-three MS patients were randomly assigned in a 1:1 ratio to either an OM treatment (OMT) (N=13) or a sham treatment arm (N=10). All subjects at the same weekly time points underwent evaluation of clinical disability, quality of life, depression, fatigue and anxiety, using respectively Extended Disability Status Scale (EDSS), MS Quality of Life Instrument (MSQLI), Beck Depression Inventory (BDI), Modified Fatigue Impact Scale (MFIS) and Beck Anxiety Inventory (BAI). We used linear regression models to compare the change from the baseline value of each outcome between the intervention and control groups at different time points.

RESULTS

A statistically significant improvement of MFIS and BDI scores in the OMT group compared to the sham group (p=0.002 and p<0.001) was found, and MSQLI scores showed a trend towards improvement in the OMT group. After 6 months of follow-up, there was no statistically significant difference between OMT and sham groups.

CONCLUSIONS

We demonstrated OM should be considered in the treatment of MS patients’ chronic symptoms.