



EBM NEWSLETTER

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PHYSICAL REHABILITATION MODULATES MICRO RNAS INVOLVED IN MULTIPLE SCLEROSIS: A CASE REPORT

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Evidence Based Research and Clinical Effectiveness

The Research & Development aspect of the NMT institute is based upon the creation of clinical experiences and controlled treatment trials leading to research projects that eventually modify how we treat our patients.

PROFESSIONAL TRAINING IN HEALTH CARE

All training courses in the medical and health area of the NeuroMuscular Taping Institute are certified by Continuing Education Credits in the country where they are held.

NeuroMuscular Taping Institute is an activity of Savà rehabilitation LINK.

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Figure 1



Diagram of rehabilitative treatment and serum miRNAs profiling. NMT, neuromuscular taping; VAS, visual analogue scale.



Tommaso Iannitti, Email: moc.liamg@ittinnai.osammot.

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<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5715604/>

This study shows that NeuroMuscular Taping improves gait, balance, pain and ability to walk and conduct daily activities in a multiple sclerosis patient. It is the first study to identify a panel of miRNAs modulated throughout rehabilitation using NeuroMuscular Taping in a multiple sclerosis patient.

Abstract

Multiple sclerosis (MS) is a neurodegenerative disease with symptoms including pain, coordination impairment, and muscle weakness [1]. Rehabilitation can improve motor function and patients' quality of life (QOL). Neuromuscular taping (NMT) is a new elastic tape which improves muscular function, pain, and postural alignment, increases lymphatic and vascular flow, and strengthens weakened muscles [2]. Furthermore, NMT increases leg muscle strength in patients affected by relapsing–remitting MS (RR-MS) versus sham device [2]. The concept of “rehabilomics” aims to study rehabilitation endophenotypes to discover the molecular substrates involved in rehabilitation, but no biomarker is available to determine rehabilitation efficacy.

miRNAs are small noncoding RNAs responsible for post-transcriptional gene regulation [3] and key regulators in MS [4, 6, 7, 9]. In addition, they are modulated by exercise in healthy subjects [5, 8]. In this study, we determined NMT efficacy in a secondary-progressive MS (SP-MS) patient and investigated, for the first time, (1) whether circulating miRNAs are altered by NMT and (2) are predictors of successful rehabilitation therapy.

KEY WORDS: Balance, gait, miRNAs, multiple sclerosis, neuromuscular taping, pain, physiotherapy

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Evidence Based Research and Clinical Effectiveness

Research and Clinical Effectiveness

The Research & Development aspect of the NMT institute is based upon the creation of clinical experiences and controlled treatment trials leading to research projects that eventually modify how we treat our patients. A good idea is not enough – it has to be substantiated using correct and precise treatment methodology. The role of the NMT Institute is to create correct and duplicable training which is the basis to all continuing education and primary objective to all training in medicine. Our role is to ensure that the Know-How created over the last 20 years becomes solid and reproducible medical intelligence.

The EB selection of clinical papers is an international open access to all areas in medicine and rehabilitation that underline possible advances in basic and advanced clinical medical research. Our objective is to create a platform for sharing correct NMT treatment methodology and result reciprocity which is the basis to all “good quality” evidence based research and clinical trials. This ongoing NeuroMuscular Taping EB selection newsletter will present research articles, reviews, short communications, patient testimonials and case reports which have been published and available from independent sources. Authors and trained NMT specialists are encouraged to publish their personal experience. Only through your personal effort to share your consolidated and sometimes experimental results you are able to positively influence “how we treat our patients” and to increase our understanding of fundamental principles in the treatment and rehabilitation progression.

Help us share your professional KNOW-HOW to others.

Regards, David Blow



ADVANCED TRAINING IN MEDICAL AND REHABILITATION AREAS

Rehabilitation specific Research Projects. The NMT Institute is committed to creating innovative and continuous training programs to help medical treatment rehabilitation services offer the best therapy possible and offer increasingly updated therapy.

The goal of the NMT Institute is to improve the overall results of patients' rehabilitation treatment and their quality of life by using standardized therapeutic protocols. The use of the technique allows you to reduce both pain and recovery times so that patients can quickly achieve psycho-motor health and well-being.

The NMT Institute's goal is to improve patients' overall treatment results and quality of life by using our treatment protocols to maximize patients' rehabilitation time, reduce pain, and enable patients to achieve active and healthy lifestyles. The comprehensive medical rehabilitation education program maintains high quality standards that will guide medical and rehabilitation staff in gaining new treatment skills to improve short and long-term rehabilitative care.

The NMT Volunteer Projects has the overall objective of breaking the vicious circle of poverty/disability, which is established in not only third world countries but in all countries, through protocols and research programs intended for local specialists who operate in the area.

HELP US TO SHARE YOUR NMT KNOW-HOW TO OTHERS



VOLUNTEER TRAINING PROJECTS ARE ORGANISED IN VARIOUS DEVELOPING COUNTRIES THAT OFFER SPECIFIC NMT KNOW-HOW FOR ORTHOPEDIC AND NEUROLOGICAL REHABILITATION

If you are in the NMT training, photo, tag yourself and follow us on the dedicated album on Facebook.

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