ICMR International Travel Support for Non-ICMR Scientist

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Name & Designation : Dr. Hina Sharma, Ph.D. Scholar.

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Name of the International Conference/ : 9th World Stroke Congress-2014.

Seminar/Symposium/ Workshop

Title of the abstract accepted : Is combination of repetitive transcranial magnetic stimulation (RTMS) with Physiotherapy better than physiotherapy alone in stroke recovery?.

Date & Venue : 22-25th October 2014, Istanbul, Turkey.

Money sanctioned : ₹ 83,509/ Money reimbursed : ₹ 66,358/-

Participation Report

World stroke congress is conducted to provide a cutting edge educational and scientific experience which focuses on the latest developments in stroke prevention, acute management and restorative care after stroke. More than 1200 individual members and over 60 society members from 85 different countries participated in the Congress meet. WSO's mission is to reduce the global burden of stroke through prevention, treatment and long term care. Teaching course including Doppler ultrasound usefulness in vascular neurology and fundamentals of critical care for stroke and secondary prevention in hypertension and hypoerlipidemia was focused. Multidisciplinary rehabilitation including stem cell, transcranial magnetic stimulation of the upper extremity and remote monitoring were presented.

NEW DEVELOPMENTS

Developments have focused on to the recent advancements in diabetes and the brain and their role in acute ischemic stroke recovery. Advancement related to functional MRI alongwith stroke recovery and Secondary prevention including antiplatelet therapy and anticoagulation and devices were discussed. Treatment of Hypertension, Diabetes and Hypercholestremia with life style modification was considered. Intervention including trans cranial magnetic stimulation post stroke, systemic thrombolysis was the part of the recent treatment. Work on certain biological parameters like brain imaging and biological markers as a prognostic models in preventing strokes after transient ischemic attack stroke (TIAS) was presented. Antithrombotic management of TIAS followed by clinical scores and vascular Imaging for stroke prevention was the major contribution. Novel targets on stem cells intervention including autologous bone marrow mononuclear cell transplantation from animals to patients was on discussion panel. Acute therapy management including perfusion imaging and treatment was presented. Also home based intervention for post acute rehabilitation of walking recovery which focuses on the evidence into clinical practice. Cerebral microbleeds on T2 weighted images and hemorrhagic transformation after antithrombotic therapies was the central part. Clinical intervention on the safety and efficacy of ENDOXABAN Vs WARFARIN in Atrial fibrillation was concluded.

Our study addressed the efficacy of combining rTMS (1 Hz) applied to the contralesional motor cortex and physiotherapy for rehabilitation of upper extremity and lower extremity and also to study the expression level of growth factor pre and post physiotherapy intervention with & without rTMS in acute ischemic stroke. This study will help us to understand a trend of recovery process in stroke patients which might lead to a significant restoration of disturbed neurological function and favourable clinical outcome. rTMS is a potential therapy in the treatment of stroke. It helps us to understand the concept of interhemispheric balance in which damage to stroke hemisphere is exacerbated by increased inhibition from the intact non-stroke hemisphere. Inhibitory intervention helps in reducing interhemispheric inhibition and thus restores the balance of excitation between the motor cortices.