Benjamin Chitambira, J Spine Neurosurg 2015, 4:5
http://dx.doi.org/10.4172/2325-9701.C1.002

OMICS International
conferenceseries.com
SciTechnol

4th International Conference and Exhibition on
Neurology & Therapeutics
July 27-29, 2015 Rome, Italy

Evolution of optokinetic chart stimulation as a novel neurorehabilitation intervention

Benjamin Chitambira
University NHS Foundation Trust, UK

Background: This presentation aims to describe optokinetic chart stimulation and its evolution as a recovery focused neurorehabilitation intervention. Stroke, traumatic brain injuries and critical care polyneuropathy and or myopathy can cause severe disability.

Methods: The optokinetic chart is made of laminated A4 paper. It consists of repeated bundles of the colours of the rainbow. The chart is placed 20 centimetres in front of a patient's face. It is moved from side to side at approximately one cycle per second for 3 minutes. This is followed by moving the chart up and down for 3 minutes and then forwards and backwards for another 3 minutes.

Results: The first task was to identify which strokes benefited most from the intervention. A case series published in 2011 identified that strokes not involving simultaneous infarcts or haemorrhages of parietal and temporal lobes recovered movements. A case control series published in 2014 demonstrated statistically significant upper limb recovery ($P<0.05$). The author has been pilot-testing to see if these differences are reproducible under randomized controlled trial conditions. First set of comparable results point to the potential of a future full trial achieving an all and none principle of the ideal scientific experiment. Preliminary efficacy has also been demonstrated in difficult to rehabilitate traumatic brain injuries and critical care polyneuropathies and or myopathies.

Conclusion: Optokinetic chart stimulation shows promise as a novel recovery focused neurorehabilitation intervention. Further research with fully powered studies is required to provide evidence for its inclusion in future guidelines.

Biography

Benjamin Chitambira completed his BSc Physiotherapy Honours degree from the University of Zimbabwe in 1995. He also completed a Postgraduate Certificate in Healthcare Leadership from the Open University in the UK in 2014. With over 19 years experience as a neuro-physiotherapist, he has been carrying out research on optokinetic chart stimulation as a clinical specialist physiotherapist in the Richard Stevens Stroke Unit for over 8 tears. With over 9 papers published in peer reviewed journals, he has been a peer reviewer for reputable journals and now serves as an editorial board member of peer reviewed journals.

bchitambira@nhs.net

Notes: