

3rd International Conference and Expo on

Physiotherapy

October 13-15, 2016 Kuala Lumpur, Malaysia

Role of transcutaneous electrical nerve stimulation as sensory intervention in hemiplegic cerebral palsy: A pilot study

Sathees Kumar Durairaj¹, Dhanesh Kumar K U² and Rajasenthil K¹¹PPG College of Physiotherapy, India²Nitte Institute of Physiotherapy, India

Background: The tactile sensory deficit is one of the major growing concerns for spastic hemiplegic cerebral palsy (HCP). This study intends to study the effectiveness of transcutaneous electrical nerve stimulation (TENS) combination with task oriented training (TOT) to improve upper limb sensory function in spastic HCP children.

Method: This single-blind, randomized, multi-center study included 15 HCP children ages ranged from 4 to 12 years. They randomly assigned into two groups, group-A received high frequency TENS with TOT and group-B received only TOT for 3 sessions per week for 8 weeks. Semmes-Weinstein monofilaments (SWM), two point discriminator (TPD), pick-up test, quality of upper extremity skill test (QUEST) and ABILHAND-Kids questionnaire were measured at before and after the interventions.

Results: The group-A showed significant difference with group-B in SWM, TPD and QUEST score at $P < 0.001$ level. No significant difference between groups A & B in pick-up test and ABILHAND-Kids questionnaire score.

Conclusions: Adding TENS with TOT can improve upper limb sensory function. Future studies will be conducted based on this study results.

Keywords: Hemiplegic cerebral palsy, Sensory deficit, TENS, Task oriented training.

Biography

Sathees Kumar Durairaj has completed his MPT from The Tamil Nadu Dr. MGR Medical University and is pursuing Doctoral Studies from Nitte University, Mangalore, India. He is the Associate Professor of PPG College of Physiotherapy, Coimbatore, India. He has published 2 papers in reputed journals.

satheesdj@gmail.com

Notes: