

Therapeutic Application of Functional Electrical Stimulation and Transcranial Magnetic Stimulation in Rehabilitation of Hand Function in Incomplete Cervical Spinal Cord Injury

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَأَنْزَلَ اللَّهُ عَلَيْكَ الْكِتَابَ وَالْحِكْمَةَ
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Contents

Subject	Page No.
List of Abbreviations.....	i
List of Tables	v
List of Figures.....	vi
Introduction	1
Aim of the Work	6
Review of Literature	7
Patients and Methods.....	115
Results	141
Discussion	231
Regarding the results of the fMRI case study:.....	244
Summary and conclusion.....	248
Conclusion.....	254
Recommendations	255
References	256
Arabic Summary	—

List of Abbreviations

<i>Abbrev.</i>	<i>Full term</i>
ADL	: Activities of Daily Living
AMT	: Active motor threshold
ARAT	: Action research arm test
ASIA	: American Spinal Injury Association Impairment Scale
BDNF	: Brain derived neurotrophic factor
CT	: Computed Tomography scan
CM	: Corticomotoneuronal
CNS	: Central nervous system
CST	: Corticospinal tract
EPT	: Electric Perceptual Threshold
FCR	: Flexor carpi radialis
FDI	: First Dorsal Interosseous
FES	: Functional electric stimulation
FIM	: Functional independence measure
fMRI	: Functional Magnetic Resonance Imaging
FTT	: Finger Tapping Test
GABA	: Gamma-aminobutyric acid
IQR	: Inter-quartile Range
iSCI	: Incomplete spinal cord injury
M1	: Primary Motor area
MAS	: Modified Ashworth Scale
MEP	: Motor Evoked Potential
MRI	: Magnetic resonance imaging

List of Abbreviations *(Cont.)*

<i>Abbrev.</i>	<i>Full term</i>
MRC	: Medical Research Center
MT	: Motor Threshold
NMDA	: N-methyl-D-aspartate
NRT	: Neuromuscular restorative therapy
NS	: Not Significant
PMC	: Pre-Motor Cortex
RCT	: Randomized Controlled Trial
RMT	: Resting Motor Threshold
rTMS	: Repetitive Transcranial Magnetic Stimulation
S	: Significant
S1	: Primary Somato-Sensory Area
SCI	: Spinal cord injury
SHFT	: Sollerman Hand function Test
SMA	: Supplementary Motor Area
TFES	: Therapeutic Functional Electric Stimulation
TMS	: Transcranial magnetic stimulation
TrKB	: Tyrosine kinase B

List of Tables

Table No.	Title	Page No.
Table (1):	The relation of spinal Cord Segments to Vertebral Numbers.....	12
Table (2):	Spinal Cord and Pathology Associated with Mechanism of Injury.....	54
Table (3):	Sensory score	67
Table (4a):	Sensory pinprick examination of the face	
(4b)	Sensory pinprick examination of the body	68
Table (5):	Some of the Maximum safe duration (s) of single trains of rTMS	111
Table (6):	Intervals for 10 trains of rTMS at less than 20 Hz.....	112
Table (7):	Demographic data of all patients in both groups:.....	141
Table (8):	Demographic data age of Group I and Group II.....	142
Table (9):	Demographic data of gender of Group I and Group II.....	143
Table (10):	Demographic data of duration since injury of Group I and Group II	144
Table (11):	Clinical data of group I at baseline	146
Table (12):	Clinical and Electrophysiological data for Group I at baseline:.....	148
Table (13):	Clinical data for Group II at baseline.....	150
Table (14):	Clinical and electrophysiological data for Group II at baseline.....	153

List of Tables (Cont.)

Table No.	Title	Page No.
Table (15):	Comparison between clinical data at baseline and at week 10 among group I showed:	154
Table (16):	Comparison of clinical and electrophysiological data at baseline and at week 10 among Group I	157
Table (17):	Comparison of clinical data at baseline and at week 12 among Group I.....	161
Table (18):	Comparison of clinical and electrophysiological data at baseline and at week 12 among Group I	164
Table (19):	Comparison of clinical data at week 10 and 12 among group I.....	168
Table (20):	Comparison of clinical and electrophysiological data at week 10 and 12 among group I.....	171
Table (21):	Comparison of clinical data at baseline and at week 10 among Group II showed:	175
Table (22):	Comparison of clinical and electrophysiological data at baseline and at week 10 among Group II.....	178
Table (23):	Comparison of clinical data at baseline and at week 12 among Group II showed:	182
Table (24):	Comparison of clinical and electrophysiological data baseline and at week 12 among Group II.....	185
Table (25):	Comparison of clinical data at week 10 and 12 among group II.....	189
Table (26):	Comparison of clinical and electrophysiological data at week 10 and 12 among group II.....	191
Table (27):	Comparison of clinical data of group I and group II at baseline.....	195

List of Tables (Cont.)

Table No.	Title	Page No.
Table (28):	Comparison of clinical and electrophysiological data of group I and group II at baseline	197
Table (29):	Comparison of clinical data of group I and group II at 10 weeks.....	201
Table (30):	Comparison of clinical and electrophysiological data of group I and group II at 10 weeks	203
Table (31):	Comparison of clinical data of group I and group II at 12weeks.....	207
Table (32):	Comparison of clinical and electrophysiological data of group I and group II at 12 weeks	210
Table (33):	Comparison of clinical and electrophysiological data of group I and group II as regards to the change between 10 and 12 weeks	214
Table (34):	Comparison of clinical and electrophysiological data of group I and group II as regards to the rate of change.....	215

List of Figures

<i>Figure No.</i>	<i>Title</i>	<i>Page No.</i>
Figure (1):	The Edwin Smith Papyrus.....	7
Figure (2):	A: spinal cord meninges. B: Nerve root anatomy in the vicinity of the spinal cord	13
Figure (3):	Arterial supply of the spinal cord	15
Figure (4):	The three levels of control of the motor system	18
Figure (5):	Motor cortical areas somatotopic organization in human and monkey	23
Figure (6):	Motor cortical areas somatotopic organization in human	24
Figure (7):	Transverse section of the spinal cord at the midcervical level	28
Figure (8):	The cortex directly controls motor neurons in the spinal cord through two descending pathways. A. The ventral corticospinal tract. B. The lateral corticospinal tract	30
Figure (9):	Medial and lateral descending pathways from the brain stem control different groups of neurons and different groups of muscles	35
Figure (10):	Schematic diagram of the spinal cord, showing the somatotopic organization of the ventral horn	36
Figure (11):	a- Connections of the propriospinal system b- Schematic diagram of pathways transmitting corticospinal actions to cervical motoneurons	38
Figure (12):	Cylindrical grip	45
Figure (13):	A. Spherical grip. B. Hook grip	46
Figure (14):	(A) pad-to-pad prehension. (B) tip-to-tip prehension.	50

Figure (15):	(A) pad-to-side pad prehension) Fig.(B) The functional position of the hand	50
Figure (16):	(A) Cervical compression fracture.) (B) Diving accident with axial compression and flexion as the mechanism of injury	51
Figure (17):	Cervical spine hyperextension injury	53
Figure (18):	Pathophysiological mechanisms	62
Figure (19):	key points	68
Figure (20):	Key muscles for both Upper and Lower Limbs	69
Figure (21):	Drawing based on cervical spine x-ray, lateral view, in which the four lines are marked	77
Figure (22):	Graphical description of a functional MRI experiment: images from two behavioral conditions are subtracted to yield regions of brain activity. In this case, a hand clenching task was used to define the primary and supplementary motor control areas in the brain	81
Figure (23):	Principles of transcranial magnetic stimulation (TMS)	82
Figure (24):	A schematic representation of basic motor control mechanisms and of the motor unit and its components	88
Figure (25):	Following SCI, structural and functional plasticity within central nervous system both rostral and caudal to injury	97
Figure (26):	a, b, c describe the Central effects of FES	103
Figure (27):	ASIA impairment score for spinal cord injury.....	119
Figure (28):	The Action Research Arm test	121
Figure (29):	9 Peg board scale	124
Figure (30):	Modified Sollerman hand function test	127
Figure (31):	Hand grip dynamometer.....	127

Figure (32):	MAGSTIM RAPID2 equipment for Transcranial magnetic stimulation.	128
Figure (33):	Application of MEP over M1.....	129
Figure (34):	Application of MEP over ABP	129
Figure (35):	Application of MEP over M1 (C3').....	130
Figure (36):	Surface EMG application of the thenars	131
Figure (37):	Surface EMG application of the long flexors	131
Figure (38):	Surface EMG application of the extensors.....	132
Figure (39):	Surface EMG assessing the Activity on maximum voluntary contraction at baseline	132
Figure (40):	Surface EMG assessing the Activity on maximum voluntary contraction after FES	133
Figure (41):	Cefar Physio4 Equipment	134
Figure (42):	The application of the flexor group of muscles on FES.....	136
Figure (43):	The application of the extensor digitorum muscle on FES.....	136
Figure (44):	The application of the triceps muscle on FES.....	136
Figure (45):	Manual training	137
Figure (46):	Writing training	137
Figure (47):	Demographic data of age of Group I and Group II...	142
Figure (48):	Demographic data of gender of Group I and Group II.....	143
Figure (49):	Demographic data of duration since injury of Group I and Group II.....	144
Figure (50):	Clinical data of group I at baseline	146
Figure (51):	Clinical data of group II at baseline.	150
Figure (52):	Comparison between clinical data at baseline and at week 10 among group I.....	155

Figure (53):	Comparison of clinical data at baseline and at week 10 among Group I.....	158
Figure (54):	Comparison of Peg board scale at baseline and at week 10 among Group I.....	158
Figure (55):	Comparison of hand grip dynamometer at baseline and at week 10 among Group I.....	159
Figure (56):	Comparison of motor evoked potentials at baseline and at week 10 among group I.....	159
Figure (57):	Comparison of surface EMG "activity" of the thenars, long flexors and extensors at baseline and at week 10 among Group I.....	160
Figure (58):	Comparison of Electric perceptual threshold at baseline and at week 10 among group I.....	160
Figure (59):	Comparison of clinical data at baseline and at week 12 among Group I.....	162
Figure (60):	Comparison of clinical data at baseline and at week 12 among Group I.....	165
Figure (61):	Comparison of peg board scale at baseline and at week 12 among Group I.....	165
Figure (62):	Comparison of hand grip dynamometer at baseline and at week 12 among Group I.....	166
Figure (63):	Comparison of motor evoked potentials at baseline and at week 12 among Group I.....	166
Figure (64):	Comparison of surface EMG "activity" of the thenar, long flexor and extensor muscles at baseline and at week 12 among Group I.....	167
Figure (65):	Comparison of Electric perceptual threshold at baseline and at week 12 among Group I.....	167
Figure (66):	Comparison of clinical data at week 10 and 12 among group I.....	169
Figure (67):	Comparison of clinical data at week 10 and 12 among group I.....	172

Figure (68):	Comparison of peg board scale at week 10 and 12 among group I	172
Figure (69):	Comparison of hand grip dynamometer at week 10 and 12 among group I	173
Figure (70):	Comparison of motor evoked potentials at week 10 and 12 among group I	173
Figure (71):	Comparison of surface EMG "activity" of the thenar, long flexor and extensor muscles at week 10 and at week 12 among Group I	174
Figure (72):	Comparison of Electric perceptual threshold at week 10 and at week 12 among Group I.....	174
Figure (73):	Comparison of clinical data at baseline and at week 10 among Group II.....	176
Figure (74):	Comparison of clinical at baseline and at week 10 among Group II.....	179
Figure (75):	Comparison of peg board scale at baseline and 10 among group II.....	179
Figure (76):	Comparison of hand grip dynamometer at baseline and at week 10 among Group II.....	180
Figure (77):	Comparison of motor evoked potentials at baseline and at week 10 among group II.....	180
Figure (78):	Comparison of surface EMG "activity" of the thenars, long flexors and extensors at baseline and at week 10 among Group II.....	181
Figure (79):	Comparison of Electric perceptual threshold at baseline and at week 10 among group II.....	181
Figure (80):	Comparison of clinical data at baseline and at week 12 among Group II.....	183
Figure (81):	Comparison of clinical data at baseline and at week 12 among Group II.....	186
Figure (82):	Comparison of peg board scale at baseline and at week 12 among Group II.....	186

Figure (83):	Comparison of hand grip dynamometer at baseline and at week 12 among Group II.....	187
Figure (84):	Comparison of motor evoked potentials at baseline and at week 12 among Group II.....	187
Figure (85):	Comparison of surface EMG "activity" of the thenar, long flexor and extensor muscles at baseline and at week 12 among Group II.....	188
Figure (86):	Comparison of Electric perceptual threshold at baseline and at week 12 among Group II.....	188
Figure (87):	Comparison of clinical data at week 10 and 12 among group II.....	190
Figure (88):	Comparison of clinical data at week 10 and 12 among group II.....	192
Figure (89):	Comparison of peg board scale at week 10 and 12 among group II.....	192
Figure (90):	Comparison of hand grip dynamometer at week 10 and 12 among group II.....	193
Figure (91):	Comparison of motor evoked potentials at week 10 and 12 among group II.....	193
Figure (92):	Comparison of surface EMG "activity" of the thenar, long flexor and extensor muscles at week 10 and at week 12 among Group II.....	194
Figure (93):	Comparison of Electric perceptual threshold at week 10 and at week 12 among Group II.	194
Figure (94):	Comparison of clinical data of group I and group II at baseline	196
Figure (95):	Comparison of clinical data of group I and group II at baseline	198
Figure (96):	Comparison of peg board scale of group I and group II at baseline.....	198
Figure (97):	Comparison of hand grip dynamometer of group I and group II at baseline	199