

**ELECTRONIC GUIDE TO THESES APPROVED BY
PHYSICAL THERAPY DEPARTMENT FOR GROWTH AND
DEVELOPMENT DISORDER IN CHILDREN AND ITS SURGERY
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

**Physical Therapy Department for Growth and
Development Disorder in children and Its Surgery**

**Doctoral Degree
2006**

Author	:	Fatma Moustafa Abd El-Aty.
Title	:	Effect of cognitive rehabilitation on hand functions in spastic hemiplegic children.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El-Sayed Shokry.
	2.	Hoda Abd El-Azim EL-Talawy.
	3.	Faten Hasan Abd El-Azim.
Degree	:	Doctoral.
Year	:	2006.
Abstract	:	
<p>This study was carried out on fifteen spastic hemiplegic children randomly divided into two equal groups: A & B. Cognitive abilities of these children as well as their hand functions were evaluated prior and after specified six months-rehabilitation program. The objectives were to study the effect of improvement of cognitive abilities in these children on their hand functions as well as the influence of hand functions training of these children on the development of their cognitive abilities. Group "A" was subjected to hand functions rehabilitation program using tasks selected from PDMS-2, while group "B" received hand functions rehabilitation program in combination with attention and concentration rehabilitation program using the RehaCom system. Results showed better improvements of motor and cognitive activities in group B than A.</p>		
Key words	1.	Hemiplegic children.
	2.	Cognitive abilities.
	3.	Hand functions.
	4.	Hand functions.
	5.	Rehabilitation.
	6.	RehaCom system.
	7.	PDMS.
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Author	:	Gehan Mosad Abd El-Maksoud.
Title	:	Hand rehabilitation with tendon transfer surgery and with botulinum toxin injection in hemiplegic children: Similarities and differences.
Dept.	:	Physical Therapy Department for Growth and Developmental Disorder in Children and its Surgery.
Supervisors	1.	Kamal El-Sayed Shoukry.
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	3.	Mostafa Hassan Aboulftoh Elsherbini.
Degree	:	Doctoral.
Year	:	2006.
Abstract	:	<p>The purpose of this study is to investigate the effect of two treatment strategies: hand rehabilitation including tendon transfer surgery and hand rehabilitation including botulinum toxin type A (BTX-A) injection in hemiplegic children. This study is also conducted to clarify the similarities and differences between two treatment strategies. Two groups of hemiplegic children -ten child in each group- participated in this study. The first group of children (group A) aged from eight to eleven years old and were treated by hand rehabilitation program included tendon transfer surgery. The second group of children (group B) aged from four to six and half years old and were treated by hand rehabilitation program including BTX-A injection. Evaluation of wrist extension, forearm supination, hand grip strength and fine motor skills were studied in two patient groups before starting the treatment after three months and after six months of treatment. The results of the present study shows a highly significant improvement in all measuring parameters for the two groups except for a highly significant reduction in hand grip strength in the first group which was noticed after three months of treatment. In addition, considerable differences between the two groups were demonstrated in relation to age, pretreatment status of children and the level of improvement at the end of a rehabilitation program. In conclusion, the results of this study confirmed that a multidisciplinary approach is essential in the management of CP children.</p>
Key words	1.	Rehabilitation.
	2.	Tendon Transfer Surgery.
	3.	Botulinum Toxin.
	4.	Hemiplegia.
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