

**Physical Therapy Department for
musculoskeletal disorder and its Surgery**
Doctoral Degree 2011

Author	:	Ehab Mohamed Kamel Ahmed.
Title	:	Combined dynamic-static splint versus immediate controlled active motion splint after extensor tendon repair.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	:	Ahmed Hassan Hussein.
	:	Manal Mohamed Ismail.
	:	Yasser El Saffoury.
Degree	:	Doctoral.
Year	:	2011.
Abstract	:	
<p>Purposes: this study was conducted to investigate the effects of combined dynamic-static splint and immediate controlled active motion splint on TAM after extensor tendon repair in zone IV-VII and to determine which of two types of treatment was better than other. Materials and methods: Thirty patients were involved, aged between 26 – 36 years. They were divided into two equal groups. Patients in the first group received immediate controlled active motion splint protocol. Patients in the second group received combined dynamic- static splint protocol. The results of study revealed that: there was a significant difference between both combined dynamic-static splint and immediate controlled active motion splint on TAM with a greater effect in favor of the combined dynamic system splint (group B). Conclusion: combined dynamic-static splint protocol has better results than immediate controlled active motion splint protocol.</p>		
Key words	:	extensor tendon repair.
	:	dynamic splint.
	:	static splint.
	:	immediate controlled active motion splint.
Arabic Title Page	:	الجبيرة الثابتة- المتحركة المشتركة مقابل جبيرة التحكم في الحركة الإيجابية مباشرة بعد عملية توصيل الأوتار الباسطة لليد.
Library register number	:	2617-2618.

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

Author	:	Mahmoud Mohamed Ewida.
Title	:	Electromyography and three dimensional motion analysis as predictors of lumbar dysfunction.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	:	Fatma Sadeek.
	:	Amir M. Saleh.
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Degree	:	Doctoral.
Year	:	2011.
Abstract	:	
<p>Purposes: To determine effect of changes occurs in lumbar curvature and Fatigue in paraspinal muscles during isometric lumbar extension as predictor of low back pain in healthy subjects. Study Design: Multiple regression analysis to predict LBP from body mass index (BMI), total lumbar angle, median frequency of the right and left longismus and iliocostalis muscles. Methodology: Fifty healthy male subjects without history of (LBP), aging from 15-30 years, Passive reflected skin marker will adhered to the spinous process of thoracic vertebrae number12, lumbar vertebrae number 3 and 5 by using double adhesive straps, the EMG activity was recorded bilaterally from the longissimus (L1) and iliocostalis lumborum (L2). The protocol consisted of 3 stages: (1) One attempt at the maximal voluntary contraction (MVC), lasting approximately 5 seconds, (2) One fatigue test, which consisted of maintaining a calculated sub maximal level of 80% of the MVC for 35 seconds; and (3) a post fatigue test (at the same 80% of the MVC) for 10 seconds to monitor recovery. The highest value obtained in the first stage was used to calculate the submaximal level of 80% of the MVC. There were 2-minute intervals between stages. Results: The study revealed that The BMI was best significant predictor for pain intensity, also the right and left (longismus and iliocostalis) muscle median frequency were found to be a significant predictor for pain intensity, while the lumbar angle was not a significant predictor for pain intensity. Conclusion: BMI and muscle median frequency were found to be a significant predictor for lumbar dysfunction while the lumbar angle cannot consider significant predictor for LBP.</p>		
Key words	:	Lumbar Dysfunction.
	:	Electromyography.
	:	BMI.
	:	Three Dimensional Motion Analysis.
Arabic Title Page	:	رسم العضلات الكهربائي والتحليل ثلاثي الأبعاد للحركة كوسيلة للتنبؤ باعتلال الفقرات القطنية.
Library register number	:	2455-2456.

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

Author	:	Yasser Abdalla Zahed.
Title	:	A Clinical Prediction Rule to Identify Patients with Cervical Spondylosis Most Likely to Benefit from Cervical Mobilization.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	:	Ahmed H. Hussein.
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Degree	:	Doctoral.
Year	:	2011.
Abstract	:	
<p>The purpose of this study was to determine factor(s) from patient history and clinical examination that is/are associated with reduction of neck pain and increasing active cervical range of motion in patients with cervical spondylosis treated by cervical mobilization. Hundred and fifty patients completed participation in this study. Patients randomly selected from orthopedic outpatient clinic in Benha University Hospital and were treated in physical therapy outpatient clinic in the same hospital. Data regarding to patient age, duration of symptoms, mode of onset, pain location, bilateral involvement of neck pain and/or arm pain, presence of cervicogenic headache, feeling better or not while moving the neck, feeling worse or not when extending the neck, neck circumference, and degree of sagittal cervical curvature were collected, patients were evaluated regarding to pain intensity and active cervical range of motion pre and post treatment intervention. Patients were treated using Maitland's mobilization techniques for 6 sessions through 2 weeks. Success or nonsuccess was based on decrease of neck pain intensity of 2 points or more on NPRS, as well as increase of one or more of active cervical ROM of a minimal detectable change or more, 102 patients (68%) achieved successful treatment, while 48 patients (32%) did not. The data of subgroup of patients that achieved successful treatment compared to subgroup of patients that did not achieved successful treatment showed significant difference between subgroups regarding to age of 49 years and younger, duration of symptoms of less than 12 weeks, pain location that is localized to neck and shoulder, unilateral involvement, presence of cervicogenic headache, feeling better with neck movement, and not feeling worse with neck extension, and degrees of cervical curvature of 18 degrees and less, but not for pain intensity, mode of onset, neck circumference, or any of cervical range of motion directions. Finally, the regression analysis for the predictor of successful treatment revealed five predictors of successful mobilization intervention in treating patients with cervical spondylosis, the predictors were: patient reported not feeling worse with neck extension, being 49 years old or younger, decreased cervical lordosis of 18 degrees or less, feeling better with neck movement, and pain localized to neck and shoulder.</p>		
Key words	:	Clinical Prediction Rule.
	:	Cervical Spondylosis.
	:	Cervical Mobilization.
Arabic Title Page	:	قاعدة تنبؤ اكلينيكية لتحديد مرضى تأكل الفقرات العنقية احتمالا ان يستفيدوا من تحريك الفقرات العنقية.
Library register number	:	2515-2516.