

## **Physical Therapy Department for Musculoskeletal Disorder and Its Surgery**

**Doctoral Degree  
2010**

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<b>Title</b>	:	<b>Shock wave therapy versus therapeutic exercises in treatment of shoulder impingement syndrome.</b>
<b>Dept.</b>	:	<b>Physical Therapy Department for musculoskeletal disorder and its Surgery.</b>
<b>Supervisors</b>		<b>1. Ahmed Hassan Hussen. 2. Alaa A. Balbaa. 3. Hatem Mohammed Elazizi. 4. Hatem Abd El-Rahman Ahmed.</b>
<b>Degree</b>	:	<b>Doctoral.</b>
<b>Year</b>	:	<b>2010.</b>
<b>Abstract</b>	:	<p>The purpose: of this study was to examine the effect of shock wave therapy versus therapeutic in treatment of shoulder impingement syndrome. Subjects: Thirty patients diagnosed as shoulder impingement syndrome stage II Neer classification due to mechanical causes. Methods: Patients were randomly distributed into two equal groups. The first group consisted of 15 patients with a mean age of 36.46 (<math>\pm</math> 6.68) received shockwave therapy (3000 shock, 1000/session, 3 sessions, 2 weeks a part, 0.32mJ/mm<sup>2</sup>) years. The second group consisted of 15 patients with a mean age of 36.26 (<math>\pm</math> 6.54) received therapeutic exercises (strengthening exercise, stretching exercise and mobilization exercises for shoulder joint) 3 times per week, each other day, for 4 consecutive weeks. Patients were evaluated pretreatment and post treatment for shoulder pain severity, shoulder functional disability, shoulder flexion, abduction and internal rotation motions and shoulder acromiohumeral distance in adduction and abduction using ultrasonography. Results: Patients of both groups showed significant improvement in all the measured variables. Between groups difference the shock wave group showed a significant improvement in decreasing pain severity and therapeutic exercises group showed significant improvement in other variables. Conclusion: Both shock wave and the therapeutic exercises had a significant effect on decreasing shoulder pain severity, shoulder functional disability, increasing in shoulder flexion, abduction, internal rotation motions and increasing (AHD) both in adduction and abduction. However, the shockwave therapy was more effective in decreasing pain severity and therapeutic exercises were more effective in other measured variables in treatment of shoulder impingement syndrome, patients.</p>
<b>Key words</b>		<b>1. impingement syndrome. 2. shoulder impingement syndrome. 3. Shockwave. 4. therapeutic exercises. 5. acromiohumeral distance (AH)</b>
<b>Arabic Title Page</b>	:	<b>العلاج بالموجات التصادمية مقابل العلاج بالتمارين العلاجية في علاج متلازمة انحشار الكتف.</b>
<b>Library register number</b>	:	<b>2313-2314.</b>

**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	:	Ibrahim Mohammed Abd El Rahman Ragab.
Title	:	Effects of a suggested physiotherapy program on function in bilateral leg lengthening using the ilizarov method.
Dept.	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
Supervisors	1.	Nadia Abd El Azeem Fayiaz.
	2.	Alaa El deen Abd Al Hakim Balbaa.
	3.	Yasser Ali El Batrawy.
Degree	:	Doctoral.
Year	:	2010.
Abstract	:	<p><b>Purpose:</b> This study was conducted to investigate the functional performance of patients underwent bilateral leg lengthening for constitutional short stature with Ilizarov external fixation by comparing the suggested physical therapy program to Barker's program. <b>Methods:</b> The study included 36 patients assigned randomly into two groups; (group A) which received the suggested physiotherapy protocol and (group B) which received Barker's exercise program. A one hundred-point scale was developed for evaluation. This scale was designed based on symptoms, functional tests, clinical examination findings, and performance tests. Rating was executed at different time intervals (latent period, distraction phase, consolidation phase, and one week post-frame removal) during a six-month physiotherapy program. Scores at different periods were compared for both groups. Results showed, at the end of the latent period, (group A); good 6 patients, fair 9 patients, poor 3 patients. While for (group B); good 5 patients, fair 8 patients, poor 5 patients, while significant difference was demonstrated at the end of distraction phase, (group A); good 6 patients, fair 11 patients, poor 1 patient, for (group B); good 5 patients, fair 10 patients, poor 3 patients, significant difference at the end of consolidation phase was manifested, for (group A ); excellent 15 patients, good 3 patients, for (group B); excellent 9 patients, good 8 patients, fair 1 patient, and finally, at the end of one week post-frame, (group A); excellent 16 patients, good 2 patients, for (group B); excellent 13 patients, good 4 patients, fair 1 patient. <b>Conclusion:</b> We concluded that the suggested program could be considered important during rehabilitation of patients treated with Ilizarov leg lengthening.</p>
Key words	1.	bilateral leg lengthening,
	2.	Ilizarov.
	3.	physiotherapy.
Arabic Title Page	:	تأثيرات برنامج العلاج المقترح على الوظيفة في حالات تطويل الساقين باستخدام طريقة الاليزاروف.
<b>Library register number</b>	:	<b>2195-2196.</b>

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PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

<b>Author</b>	:	Sahar Ahmed Abd AI-Bary.
<b>Title</b>	:	Predictive measurement of windlass mechanism and suggested treatment in plantar fasciitis.
<b>Dept.</b>	:	Physical Therapy Department for musculoskeletal disorder and its Surgery.
<b>Supervisors</b>	1.	Bassem G. El-Nahass.
	2.	Aly Osman El-Mofty.
	3.	Khaled El-Sayd Aiad.
<b>Degree</b>	:	Doctoral.
<b>Year</b>	:	2010.
<b>Abstract</b>	:	<p>Approximately 10% of patients with plantar fasciitis could have developed a persistent and often disabling symptoms, yet little is known about its etiology. The purpose of the present study was to use an objective easy and economic method to measure the windlass mechanism and efficiency of a suggested treatment protocol used in this study for a period of one month. Matched design was used, the matching criteria were age, weight, normal foot type, and gender. Fifty patients with unilateral plantar fasciitis who met the inclusion criteria and fifty normal subjects participated in the study. A visual analog scale and foot function index (pain subscale) were used to measure level of pain, reliable goniometric method to measure weight bearing windlass and dorsiflexion and plantar flexion ranges of motion, foot plantar pressure (static and dynamic measurements), and tape measurement of plantar aponeurosis length. All patients completed the assessment before the treatment and after the treatment protocol was completed. The treatment modalities included ultrasonic treatment, electrical heating pad, night splint, plantar aponeurosis and tendoachiles stretching exercises, and extrinsic and intrinsic strengthening exercises. The patients were reevaluated after one month and compared with normal subjects. There was significant correlation between clinical measurement (tape measurement, windlass range of motion), and foot plantar pressure with great improvement in patients with plantar fasciitis. Suggested treatment protocol was successful in 96% of patients. The measuring technique is valid and objective for the windlass mechanism. The suggested treatment protocol proved to be effective in the treatment of patients with chronic plantar fasciitis.</p>
<b>Key words</b>	1.	Plantar fasciitis.
	2.	windlass mechanism.
	3.	foot plantar pressure.
	4.	clinical measurement.
	5.	treatment protocol.
	6.	foot function index.
<b>Arabic Title Page</b>	:	عنوان الرسالة: القياس التوقعي لآلية رافعة قوس القدم والعلاج المقترح لإلتهاب صفاق الأخمص بالقدم.
<b>Library register number</b>	:	2049-2050.

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DEPARTMENT FOR MUSCULOSKELETAL DISORDER AND ITS SURGERY  
PREPARED BY NERVEEN ABD EL SALAM ABD EL KADER AHMED**

<b>Author</b>	:	<b>Saud Mashi A. Alrawaili.</b>
<b>Title</b>	:	<b>Ultrasound therapy versus shock wave therapy in treatment of plantar fasciitis.</b>
<b>Dept.</b>	:	<b>Physical Therapy Department for musculoskeletal disorder and its Surgery.</b>
<b>Supervisors</b>	1.	<b>Ahmed Hassan Hussein.</b>
	2.	<b>Ali Osman El-Mofty.</b>
	3.	<b>Hatem A. R. A. Ahmad.</b>
	4.	<b>Khaled El-Sayed Ayad.</b>
<b>Degree</b>	:	<b>Doctoral.</b>
<b>Year</b>	:	<b>2010.</b>
<b>Abstract</b>	:	
<p><b>Purpose:</b> the purpose of this study is to compare the effects of ultrasound therapy combined with stretching and strengthening exercises versus shock wave therapy combined with the same exercises on pain severity, functional disability of the foot, foot pressure and ankle dorsi and plantar flexion ROM in patients with plantar fasciitis. <b>Subjects:</b> Thirty male and female patients with chronic unilateral plantar fasciitis included in this study. Their age ranged from 35-45 years with body mass index less than 30 kg/m<sup>2</sup>. <b>Methods:</b> The patients were assigned randomly into two groups. Group (A) consisted of 15 patients who received ultrasound therapy combined with stretching and strengthening exercises, and Group (B) consisted of 15 patients who received shock wave therapy and the same exercises of group (A). <b>Results:</b> The results of this study showed significant improvements in both groups. There was a statistically significant differences between groups in pain severity, functional disability of the foot and foot plantar pressure in favour of group (B), and there was a statistically non-significant differences between groups in ankle range of motion. <b>Conclusion:</b> This study showed that treatment of plantar fasciitis with shock wave therapy combined with therapeutic exercises is more effective than ultrasound therapy combined with the same exercises.</p>		
<b>Key words</b>	1.	<b>plantar fasciitis.</b>
	2.	<b>Ultrasound.</b>
	3.	<b>therapeutic exercises.</b>
	4.	<b>foot plantar pressure.</b>
	5.	<b>foot function.</b>
	6.	<b>shock wave.</b>
<b>Arabic Title Page</b>	:	<b>العلاج بالموجات فوق الصوتية مقابل العلاج بالموجات التصادمية في علاج صفاق الأخمص.</b>
<b>Library register number</b>	:	<b>2319-1320.</b>