

Department of Basic Science

Doctoral Degree 2003

Author	:	Amir Mohamed Saleh.
Title	:	Effect of angle-specific isometric strengthening exercises on quadriceps muscles in total knee replacement's patient.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen M. El-Sayyad.
	2.	Judith L. Stoecker.
Degree	:	Doctoral.
Year	:	2003.
Abstract	:	<p>Background rehabilitation after total knee arthroplasty (TKA) plays an important role in the success of the surgery improving the power of the thigh muscles and obtaining early range of motion (ROM) after TKA may be related to improve of rehabilitation cast the purpose of this study was to investigate the effect of angle specific isometric strengthening exercises on thigh muscles and standard physical therapy rehabilitation program. subjects : fifty subjects (mean age= 68.70+2.77)30 female and 20 male post primary TKA were randomly assigned to one of two groups ; 25 patents in each group . In group A, control group received standard physical therapy rehabilitation. group B experimental group received a modified rehabilitation program which include angle-specific isometric exercises for the thigh muscles . active knee flexion and active knee extension deficit, quadriceps and hamstring isometric force and 5 functional activities were measured on the first home health visit and by the of the 4 weeks. the romaes measured by using the universal goniometer, the muscle power was measured by the hand-held dynamometer while the functional activities were measured by using the patient's specific functional scale (PSFS). Results: there was a significant increase in knee ROM, thigh muscle power and P.S.F.S for both groups . There was a statistically significant difference ($p<0.05$) between the two groups in knee ROM, thigh muscle power and functional activities. Discussion and conclusion: modified rehabilitation program is an effective program in rehabilitation: program is an effective program in rehabilitation of post - operative TKA.</p>
Key words	1.	Total knee arthroplasty.
	2.	angle specific isometric exercises.
	3.	functional outcomes.
Arabic Title Page	:	تأثير تمارينات التقوية الساكنة عند زاوية محددة عند عضلات الفخذ الامامية عند مرضي تغيير مفصل الركبة.
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**ELECTRONIC GUIDE TO THESES APPROVED BY
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Author	:	Neveen Abd El-latif Abd El-Raouf.
Title	:	Balance in subjects with and without scoliosis implication for physical therapy treatment.
Dept.	:	Department of Basic Science.
Supervisors	1.	Mohsen M. El-Sayyad.
	2.	Abd El - Megeed El- Ashmawe.
Degree	:	Doctoral.
Year	:	2003.
Abstract	:	<p>The purpose of this study was to investigate the difference in balance responses between SIS patients and normal subjects and also to investigate the efficacy of physical therapy management on spinal curve and balance response of AIS patient's subjects. thirty-three patients with AIS (23 males and 10 females), age (16 . 1 + 2 . years . eighty healthy subjects (48 males and 32 females)age (15 + 2.9)years . experimental group (AIS)was evaluated by both moire topography to measure spinal angles and biodex stability system (BSS)to measure medico-lateral stability index in six testing conditions . then this group had applied conservative treatment in the form of lateral electrical stimulation, therapeutic exercise and balance training , this program was applied every other day for twelve weeks . control group was evaluated by BSS to measure stability indices . results . there was a significant decrease in spinal angle from (17 .+ 5.) to (10.3+ 5.5)as well as significant decrease in stability indices in all testing conditions except for standing on left foot with eye closed . discussion and conclusion . the relation between balance and spinal angles revealed that balance could be used as predictor for scoliosis it's recommended to include balance in physical therapy program for treating patients complaining from AIS.</p>
Key words	1.	Screening.
	2.	Scoliosis.
	3.	Balance.
	4.	moire topography.
Arabic Title Page	:	الاتزان لدى الاشخاص المصابين والغير المصابين بالانحناء الجانبي للعمود الفقري وتطبيقاته فى العلاج الطبيعى.
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