PM&R Vol. 4, lss. 10S, 2012 **S311** 

acute hospital for critically ill patients would decrease length of hospital stay and improve clinical outcome.

**Design:** Prospective, randomized, single blinded, controlled study. **Setting:** University hospital, ward.

**Participants:** 53 ICU patients after organ transplantation, abdominal, cardiac and thoracic surgery were randomly asigned to an intervention or a control group.

**Interventions:** The intervention group received daily treatment of at least 2 hours up to a maximum of 4 hours. The intervention always included exercise therapy, respiratory therapy, bed cycling and neuromuscular electrical stimulation of thigh muscles. Occupational therapy and massage therapy were provided according to patient needs. The control group received 30 minutes exercise or respiratory therapy. In both groups therapy was provided 5 days a week.

**Main Outcome Measures:** Length of stay in the normal ward was the main outcome measurement. Secondary outcome measurements were pain assessment by a visual analog scale, 3-minutes walk test, Functional reach test, and Beck depression inventory.

**Results:** Length of stay was reduced in the intervention group in average by 6 days. The per protocol (P=.029) and worst case (P=.03) analysis showed a statistically significant difference of length of stay between the intervention and control group. The improvement of walking distance and Functional reach test was achieved earlier in the intervention group. Pain was reduced in the intervention group.

**Conclusions:** An intensive physical therapy and rehabilitation program could decrease length of stay, accelerate functional improvement and decrease pain in the intervention group.

## Poster 354

## Assessment of Randomized Controlled Studies in Physical Medicine and Rehabilitation Using the Jadad Scale: A Systematic Review.

Tima Le, DO (University of Michigan, Ann Arbor, MI, United States); Joseph E. Hornyak, MD, PhD; Dae Kim, DO.

Disclosures: T. Le, No Disclosures.

**Objective:** To evaluate the quality of research in physical medicine and rehabilitation by assessing the quality of randomized controlled trials (RCT) published in 3 major physical medicine and rehabilitation journals during the years 2010 and 2011.

**Design:** Systematic review.

**Setting:** PM&R implementation research laboratory.

Participants: Not applicable. Interventions: Not applicable.

Main Outcome Measures: Jadad scale.

**Results:** Out of all the studies reviewed in three PM&R journals (*Archives of Physical Medicine and Rehabilitation, American Journal of Physical Medicine and Rehabilitation,* and PM&R) RCT studies made up 10.1% in *Archives of Physical Medicine and Rehabilitation,* 16.5% in *American Journal of Physical Medicine and Rehabilitation,* and 8.4% in PM&R. 84.9% of RCT studies in all journals combined were of high quality (a Jadad score of 3 or better).

**Conclusions:** This study provides new information regarding the quality of research published in physical medicine and rehabilitation journals. In 2010 and 2011, the majority of RCTs were of high quality based upon Jadad criteria.

## Poster 355

Comparison of the Effect of Complex Decongestive Physical Therapy on the Edema Volume, Quality of Life, and Level of Satisfaction between Arm Lymphedema and Leg Lymphedema Patients.

Young Bum Kim (Pusan National University Yangsan Hospital, Pusan, Korea, Republic of); Mi Sook Ahn, Bachelor; Hyun Ju Chang, Master; Ji Hye Hwang, MD, PhD; Chu In Ho, Bachelor; Kim Jung Hyun, Master.

**Disclosures:** Y. Kim, Employment: Pusan Nation University Yangsan Hospital.

**Objective:** (1) To describe the volume reducing effect, quality of life (QOL) improvement and level of satisfaction of complex decongestive physical therapy (CDPT) in the patients with arm lymphedema (AL) and leg lymphedema (LL), (2) to compare the difference in the improvement of QOL, physical function and level of satisfaction between AL and LL.

**Design:** Prospective cohort study.

**Setting:** Outpatients of physical medicine and rehabilitation clinic at university hospital.

**Participants:** One hundred patients with mild to moderate chronic secondary AL (n=50) and LL (n=50).

**Interventions:** All patients with lymphedema were treated with ten sessions of CDPT (manual lymph drainage, low stretch bandage, elastic sleeve, and sequential pneumatic pump) daily five times per week for 2 weeks.

**Main Outcome Measures:** Lymphedema volume by using an optoelectronic volumeter, the short form (36) health survey of Korean version; DASH (Disabilities of arm, shoulder & hand) score; self developed satisfaction survey.

**Results:** The mean percent excess volume was 18.2% in the patients with AL and 22.7% in patients with LL pre-CDPT. The percent volume reduction was 17% in the patients with AL and 23% in patients with LL after 2 weeks of CDPT. The body pain and change of health condition in QOL, and physical function, cosmetic appearance, and professionalism for therapists in satisfaction survey as well as percent volume reduction were significantly improved in patients with both AL and LL after 2 weeks of CDPT. Mental health is worse in patients with LL than AL (P=.040), but mental health (P<.001) in QOL and level of edema (P=.003) in satisfaction survey were significantly more improved in the patients with LL than AL

**Conclusions:** This study shows that the edema volume, QOL and level of satisfaction are significantly improved after complex CDPT in patients with mild to moderate AL and LL. But mental health and satisfaction for edema reduction are more improved in the patients with LL than AL.

## Poster 356

Effectiveness of a Neuroanatomy Lecture Series in Teaching the Peripheral and Cranial Nerves to Physical Medicine and Rehabilitation Residents.

Zachary Allred, DO (Metrohealth Medical Center, Cleveland, OH, United States); John Chae, MD; Richard D. Wilson, MD.

Disclosures: Z. Allred, No Disclosures.

**Objective:** To evaluate the effectiveness of two methods for teaching the anatomy of the peripheral and cranial nerves to physical medicine and rehabilitation residents.