



Service Priorities and Programmes Electronic Presentations

Convention ID: 254

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Pilot Study on Physiotherapy for Breast Cancer Related Lymphedema

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Keywords:

Lymphedema

Physiotherapy

Low Level LASER Therapy

Complete Decongestive Therapy

Breast Cancer

Introduction

The patient having radical mastectomy with post-operative radiotherapy has high incidence of lymphedema of arm. This not only affects the cosmetic appearance, may also increases the disabilities of upper limb, increases the symptoms of heaviness and paraesthesia of the affected limb. Physiotherapy with Low Level LASER Therapy (LLLT) was given in addition to Complete Decongestive Therapy (CDT) to enhance the resolution of lymphedema and related symptoms

Objectives

To evaluate the treatment effect of CDT with LLLT on patients with breast cancer related lymphedema

Methodology

1. Patient having breast cancer related lymphedema being referred for physiotherapy, complete decongestive therapy (CDT) including manual lymph drainage (MLD), compression therapy, decongestive exercises and skin care was given. It was delivered through individual treatment and education classes 2. Patients with breast cancer in remission (no evidence of recurrence and metastasis) and post-operative period more than one year, LLLT was added. It was targeted on axillary, cubital fossa regions of the affected limb and over fibrotic regions as indicated 3. Outcome measures were the sum of circumference of the edematous arm at 10-cm intervals taken by tape measure, self-reported overall improvement –NGRCS (Numeric Global Rate of Change Scale) and QuickDASH (Disabilities of the Arm, Shoulder and Hand) questionnaire 4. Patients who had completed the intervention with CDT and LLLT were reviewed. Those patients had cellulitis during the treatment period were excluded

Result

Nine female patients with mean age of 61.2 (SD 4.74) were reviewed. The mean sessions of LLLT delivered was 11.22 (SD 2.33). The difference in sum of measurements at 10-cm intervals of the affected arm on first visit and after CDT/LLLT

decreased by 4.37cm (SD 4.9, 95%CI 0.58-8.15, $P<0.05$). The mean subjective improvement after CDT/LLLT as reported by NGRCS was 63.3% (SD 16.6). The mean QuickDASH score at baseline was 41.6% and after education classes was 35.4%. The score improved with mean difference of 6.11 (SD 12.2), but it was statistically not significant after analysis. Conclusion: The results show that the treatment program that included CDT and LLLT was effective in resolution of breast cancer related lymphedema and improving the subjective complaint of the patient.