A Follow Up Trial on Cases with Difficult Lymphedema Control- Patients with Extreme Body Mass Index

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Introduction
A comprehensive upper arm lymphedema management demonstrated a positive and promising result in the last trial “Breast cancer treatment related lymphedema: Early detection and early intervention with improved clinical outcome; a multidisciplinary team MDT integrated approach” in 2016 (Or, AYM; Li JFP, et al, 2016). In the study, breast cancer patient with lymphedema and extreme body mass index (BMI) <17 or BMI >25 could not achieve progress as promising as other patients with normal range BMI.

In order to help those cases with extreme BMI to relieve lymphedema, additional interventions were implemented since November 2016 in Kwong Wah Hospital.

Hypothesis:
Control BMI with dietary control and strenuous activity can help to improve the exacerbation of lymphedema.

Objectives
To improve lymphedema control of patients suffering from extreme BMI by implementation of dietary control and strenuous activity to MDT comprehensive upper arm lymphedema management program

Methodology
Target sample:
1. Breast cancer patient with BMI <17 or >25 suffering from upper arm lymphedema
2. Ethnic Chinese

Usual program:
Nursing: body composition analysis, arm Girth measurement, physical
examination with individualized education on self-localized massage, group
lymphedema exercises
- Physiotherapy: shoulder range, heaviness score, physical examination,
  individualized education on exercises and massage, laser therapy
- Special additional program:
  - Nursing intervention: Dietary education, diet chart and review
  - Physiotherapy intervention: home based exercise, theraband, aerobic and
    stretching exercise with exercise demonstration leaflet and log sheet
- 4-months program evaluation:
  - Disability of the Arm, Hand and Shoulder questionnaire (quick DASH)
  - Physical assessment, shoulder range and heaviness score (VAS)
  - Numeric global rating of change scale (NGRCS)
  - Body composition analysis: upper limb body water difference, body mass index
    (BMI) and percentage body fat (PBF)
  - FACT- Breast specialty QOL questionnaire

**Result**
There were 6 cases recruited. There were improvement in heaviness score and
NGRCS. Individuals with lymphedema reported that they had improved mobility and
overall body heaviness. Though there were little change in upper limb body water
difference, BMI and PBF. The patients could participate in regular exercise without
experiencing a worsening of lymphedema or related symptoms.