



# The effect of lymphedema on the quality of life of breast cancer patients

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## ABSTRACT

- Lymphedema is a chronic progressive state caused by abnormalities or damage of the lymphatic system.
- Accurate information on health-related quality of life (HRQOL) outcomes among patients with breast cancer-related lymphedema (BCRL) is important since lymphedema is known to have a significant impact on the physical, psychological, and social health of patients
- The purpose of this study was to evaluate the quality of life of patients with breast cancer according to the presence or absence of lymphedema and the treatment.**

## METHODS

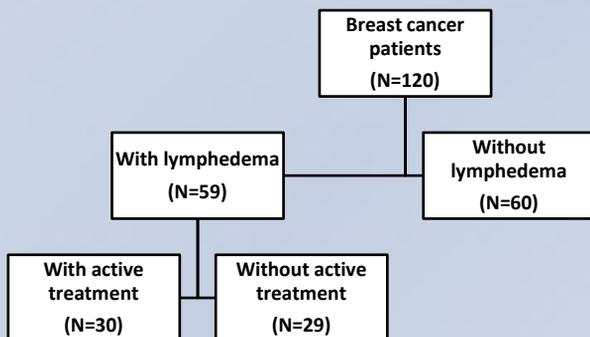
### Subject

One hundred and twenty breast cancer patients (N=120) visiting at department of general surgery and rehabilitation medicine

Inclusion criteria were as follows (1) at least 21 years of age; (2) willing and able to provide informed consent; (3) a history of undergoing surgery for breast cancer

Exclusion criteria were as follows (1) primary lymphedema; (2) bilateral breast cancer

Classified in 3 groups according to presence of lymphedema and treatment. Active treatment means intervention (complex decongestive physical therapy or stellate ganglion block) at hospital within 6 months



### Questionnaire

#### Health-related quality of life (HRQOL)

The EuroQol was used to evaluate health-related quality of life (HRQoL). Part 1 recorded the level of self-reported problems according to five dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression). Using a combination of these items, a single health index score was calculated using the Korea valuation set developed by the Korea Centers. Part 2 of the questionnaire records the subject's self-assessed VAS rating of health on a vertical 20 cm line on which the best and worst imaginable health states score 100 and 0, respectively.

## RESULTS

- Quality of life was different according to lymphedema and its treatment. **EQ5D index was lower at lymphedema patient without active treatment compared to without lymphedema (P=0.03).**
- Lymphedema patient think satellite ganglion block is most effective among patients with active treatment and manual lymphatic drainage among lymphedema patient without active treatment. Lymphedema patients without active treatment think manual lymphatic drainage is the most uncomfortable treatment (44.4%).

		Without lymphedema (n = 60)	Lymphedema with active treatment (n = 30)	Lymphedema without active treatment (n = 29)
		N (%)	N (%)	N (%)
EQ	M	8.3	3.3†	20.7†
	-5D			
	SC	6.7*‡	23.3*	24.1‡
	UA	18.3*‡	40.0*	55.2‡
	PD	48.3‡	66.7	75.9‡
	AD	44.3‡	53.3	69.0‡
<b>EQ5D Index</b> (mean ± SD)		<b>0.91±0.08§</b>	<b>0.86±0.07</b>	<b>0.84±0.10§</b>
EQ VAS (mean ± SD)		74.50±18.17	76.17±17.70	66.74±22.28

\* Pairwise t-test with Pearson Chi-square comparing women with diagnosed lymphedema with active treatment v women without lymphedema  
† Pairwise t-test with Pearson Chi-square comparing women with diagnosed lymphedema with active treatment v women without active treatment

‡ Pairwise t-test with Pearson Chi-square comparing women without active treatment v women without lymphedema

§ Pairwise t-test with Bonferroni adjustment comparing women without active treatment v women without lymphedema

M : mobility, SC : self care, UA : usual activity, PD : pain/discomfort, AD : anxiety/depression

## CONCLUSIONS

- Lymphedema and its treatments affect quality of life in many aspects.
  - EQ5D index was lower at lymphedema patient without active treatment compared to without lymphedema. Among the problem, self care, usual activity, pain/discomfort, anxiety/depression occur more frequently.
  - There was no difference of EQ5D index between patient without lymphedema and diagnosed lymphedema with active treatment. Then active treatment of lymphatic edema can be thought to decrease the burden of life.
- ⇒ Therefore, **when breast cancer patients complaint of lymphedema, active treatment must be considered.**

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