

## QUALITY OF LIFE AND PERIPHERAL LYMPHEDEMA

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### ABSTRACT

*Evaluation of the health-related quality of life (QOL) is becoming commonplace, seeking to provide information about the everyday well-being of a patient. This work examined the QOL of 23 consecutive patients with lymphedema of the upper or lower extremities. Five were men and the other eighteen were women. Their ages ranged from 19 to 74 years (mean 48.3). After clinical examination, and with informed consent of each patient, they were assessed by a psychologist and submitted to a QOL test (SF-36). For controls, twenty-three women and five men with age range of 28 to 66 years (mean 47) were similarly evaluated. The results showed the lymphedema group had a statistically significantly reduced QOL in both physical and mental health as well as social interaction.*

Lymphedema is swelling caused by an abnormal accumulation of liquids and proteins in tissues resulting from failure of the lymphatic drainage system. It is a chronic condition but one in which treatment can reasonably control and minimize its progression.

There are several physical and emotional factors related to peripheral lymphedema, such as increased weight of the edematous limb with restricted motion aggravated by fibrosis and joint contracture, and altered sensitivity and embarrassment during social interactions. Accordingly, a broader clinical approach in terms of quality of life (QOL)

during diagnosis and follow-up would likely benefit these patients.

QOL can be defined as a multidimensional construct including physical well-being, symptoms directly related to the condition and treatment, and the psychologic and social ramifications of the ailment (1,2).

Evaluating the health-related QOL of the sick is becoming more common, seeking to provide information about the daily life of a patient. Such information is proving to be of great importance in the intervention and prevention of a multitude of clinical problems in health care management.

Testing provides a means to identify subtle health related issues and make it possible to develop and promote useful intervention projects to improve overall well-being (2). The generic QOL evaluation questionnaire SF-36 (Medical Outcomes Study 36-Short-Form) was validated in Brazil and it is one such evaluation tool. In this test, there are eight areas of questioning, namely, physical capacity, physical, social, and emotional aspects, mental outlook, pain and overall well-being (2). Using a scale from zero (extremely bad) to 100 (excellent), it has been validated in a variety of clinical conditions and by several other investigators in other countries. It has the advantage that it can be easily completed by the patient.

### SUBJECTS

Twenty-three patients undergoing treatment for lymphedema of the upper or

**TABLE 1**  
**Distribution of the Results of the Quality of Life test (SF-36), in Patients with Lymphedema**

	Ph. Cap.	Ph. A.	Pain	G. S. H.	Vit.	Soc. A.	Em. A.	Men. H.
50	100	22	35	40	25	0	40	
80	0	100	87	35	50	100	84	
35	0	22	15	10	25	0	12	
75	0	46	65	60	75	0	56	
65	0	22	72	45	80	0	56	
70	100	51	47	35	75	100	36	
90	100	100	60	90	100	100	84	
70	0	12	72	80	62.5	0	60	
55	0	41	42	10	50	0	20	
60	0	74	22	45	62.5	0	72	
65	100	61	92	75	100	100	72	
80	50	100	77	70	37.5	100	72	
30	0	22	20	20	37.5	0	20	
25	0	0	15	10	12.5	0	24	
85	0	31	82	80	37.5	100	68	
60	0	22	30	20	25	0	20	
50	0	51	35	60	50	0	64	
60	100	51	87	65	60	100	40	
25	0	41	40	40	100	0	12	
40	50	51	22	5	25	100	20	
45	0	41	77	65	37.5	0	80	
65	100	51	47	80	100	100	84	
95	50	42	65	50	100	100	68	
Mean	59.78	32.61	45.83	52.43	47.39	57.72	43.48	50.61
SD	20.08	44.23	27.26	25.51	26.24	28.78	50.69	25.57
Ph. Cap. = Physical Capacity; Soc. A. Social Aspect; Ph. A. = Physical Aspect; Pain = Pain; Men. H. = Mental Health; G. S. H. = General state of Health; Vit. = Vitality; Em. A. = Emotional Aspects								

lower limbs in the ambulatory setting of a university hospital were evaluated. Five were men and the other 18 were women with age range from 19 to 74 years (mean 48.3). After clinical examination and documentation of lymphatic insufficiency by lymphoscintigraphy, an informed consent was obtained in each patient to study the QOL. Each patient was

sent to a psychologist and was asked to complete a generic questionnaire SF-36. A control group, consisting of 23 women and five men without major disability in the age range of 28 to 66 years (mean 47), similarly completed the questionnaire. The Mann-Whitney Test was used for statistical analysis with a p-value <0.05 taken as significant.

**TABLE 2**  
**Distribution of the Results of the Quality of Life test (SF-36),**  
**in Non-Disabled Patients (Control Group)**

	Ph. Cap.	Ph. A.	Pain	G. S. H.	Vit.	Soc. A.	Em. A.	Men. H.
	100	100	72	57	90	100	100	80
	90	100	100	52	100	37	100	88
	85	100	72	92	50	100	33	36
	90	100	100	92	80	100	100	64
	90	100	100	87	95	100	100	96
	40	25	30	40	30	75	0	52
	100	100	100	100	85	100	100	84
	100	100	100	95	90	62.5	0	72
	85	0	22	87	35	50	100	76
	100	100	100	97	75	100	100	84
	90	50	51	97	60	25	0	28
	100	50	72	52	85	100	66	44
	100	100	100	92	100	100	100	56
	60	75	100	72	75	87	100	92
	100	100	82	100	99	100	100	96
	100	100	74	92	100	100	100	100
	100	100	100	82	20	100	100	80
	25	0	22	65	50	75	100	88
	60	50	84	72	40	50	33	52
	100	100	100	89.5	90	100	100	72
	95	50	72	77	40	75	0	48
	100	100	100	92	90	100	100	84
	70	25	15.5	52	45	62.5	100	44
	95	100	100	72	65	50	100	36
	100	100	100	100	95	100	100	96
	100	100	61	92	85	100	100	96
	60	0	61	45	25	50	33.3	40
	95	50	72	67	25	37.5	33.3	44
<b>Mean</b>	86.79	74.11	77.23	78.91	68.54	79.88	74.95	68.86
<b>SD</b>	20.15	36.31	27.43	18.59	27.14	25.10	39.19	22.69

Ph. Cap. = Physical Capacity; Soc. A. Social Aspect; Ph. A. = Physical Aspect; Pain = Pain; Men. H. = Mental Health; G. S. H. = General state of Health; Vit. = Vitality; Em. A. = Emotional Aspects

## RESULTS

QOL in the lymphedema patients was found to be less than satisfactory in all tested areas: vitality ( $p < 0.007$ ); pain ( $p < 0.006$ ); general state of health ( $p < 0.0002$ ); physical aspects ( $p < 0.002$ ); mental health ( $p < 0.009$ ), physical capacity ( $p < 0.0004$ ), emotional aspects ( $p < 0.03$ ), and social aspects ( $p < 0.097$ ) (Table 1) as compared with the control group (Table 2).

## DISCUSSION

The perception of the state of health and the QOL of patients, as well as the impact of the disease and its treatment, are widely recognized as important issues in epidemiological research (2). Psychometric techniques are utilized in the evaluation of the QOL in all medical disciplines but particularly with chronic diseases. Generic scales and specific disease tests are the two instruments most frequently used to measure the main aspects of QOL (1). The generic scale denominated SF-36 has been validated in Brazil and is recommended for evaluating QOL in chronic illnesses (2).

In this study, all eight areas covered in the test were cited as less than satisfactory in the patients with lymphedema indicating deterioration in the QOL of these individuals when compared with a similar group without disability. The physical aspect directly relates to impairment of the lymphedematous limb. Pain, which normally is not considered a major symptom of lymphedema does, in fact, interfere in the QOL. The symptom probably relates to tightness or ongoing overt or latent inflammation and represents a nagging inconvenience in lifestyle. Overall health and vitality were also less than optimal with a constant uncomfortable feeling in the swollen limb. Mental health was also adversely affected suggesting that physical impairment interferes with mental well-being. In this setting, deteriorating social and emotional health aspects were not surprising.

These data highlight the importance of broadening care to treat these patients more than just the physical ramifications of lymphedema. It also suggests, however, that the more effectively one can treat the physical condition, the more the emotional and social aspects are likely to improve. Nonetheless, a multi-disciplinary team is desirable if the QOL of a patient with lymphedema is to be optimized.

QOL testing can also assess the outcome of treatment clarifying inadequate areas and allow the caretaker to refocus everyday care as needed.

## CONCLUSION

QOL is impaired in a patient with peripheral lymphedema. The less than satisfactory aspects included physical activity, pain, overall well being, vitality, mental outlook, physical capacity, emotional reaction, and social interaction.

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