

# Head and neck lymphoedema management: A Brazilian retrospective experience

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# Introduction

- Secondary lymphoedema after head and neck cancer treatment is a serious complication and its management can be a challenge.
- Although treatments for head and neck, upper-limb and lower-limb lymphoedema are based on complete decongestive therapy, the head and neck lymphoedema treatment is the most challenging of them, because of the anatomical and functional complexity of this region.

**Deng J, et al. Head Neck. 2013;35(7):1026-35.**

**Deng J, Ridner SH, Murphy BA. Oncol Nurs Forum. 2011;38(1):E1-E10.**

# Introduction

Many aspects should be considered, including:

- Where to perform MLD
- How to apply compressive therapy
- What instruments to be used to assess the therapeutic monitoring
- The lack of consensus concerning the use of combined physical therapy modalities

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# Objective

To evaluate the effect of physical therapy on the management of head and neck lymphoedema by retrospective analysis

# Methods

- The analysis of 32 medical records of patients with head and neck cancer
- Physiotherapy outpatient clinic of the Brazilian Institute of Cancer Control (IBCC, Sao Paulo – SP, Brazil)
- August 2008 to July 2010
- Research Ethics Committee of the IBCC (No. 177/2009/18)

# Methods

Information collected from the medical records:

- Gender
- Age
- Habits
- BMI
- Diagnosis
- Medical treatment
- Lymphoedema classification
- Complaints
- Measurements of face and neck
- VAS for pain
- Physical therapy modalities
- Number of sessions
- Outcome

Medical records missing more than 3 of the variables were discarded

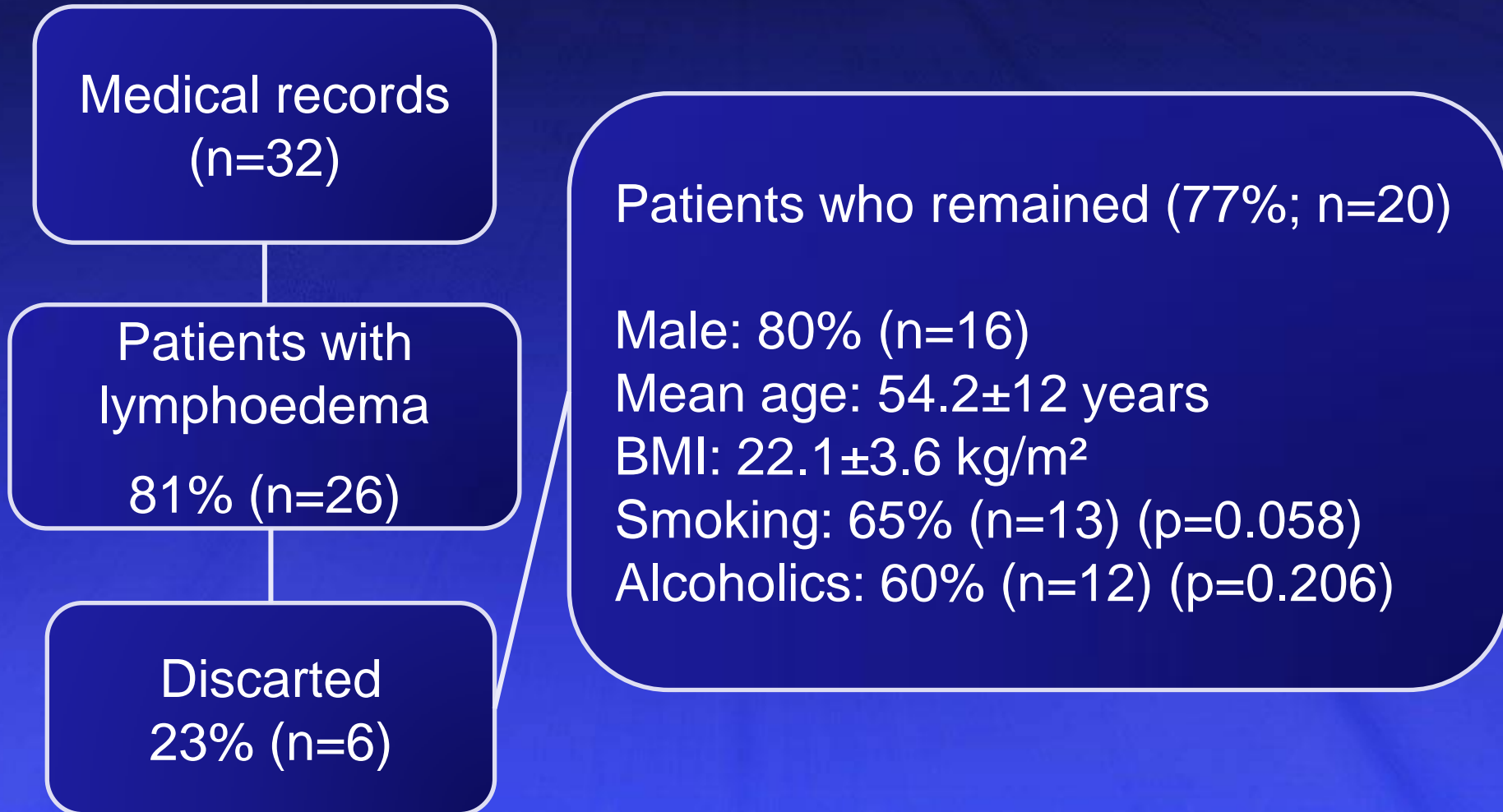
# Methods

## Statistical analysis:

- **Descriptive analysis:** age, BMI, number of sessions
- **Test for equality of two proportions:** gender, habits, diagnosis, medical treatment, complaints, lymphoedema classification, presence or absence of pain, physical therapy modalities and the outcome
- **Wilcoxon test:** was used to compare measurements of face, neck, and pain, both before and after the treatment

All tests were performed at a significance level of 5% ( $p \leq 0.05$ )

# Results





# Distribution of diagnosis and medical treatment:

		n	%	p-value
<b>Cancer</b>	Oral Cavity	8	40	<0.008*
	Larynx	5	25	
	Farynx	4	20	
	Lacrimal canaliculus	1	5	
	Mandible	1	5	
	Thyroid	1	5	
<b>Neck Dissection</b>	Radical unilateral	8	40	<0.05*
	Radical bilateral	6	30	
	Modified unilateral	2	10	
	Modified Bilateral	1	5	
	No dissection	3	15	
<b>Chemotherapy</b>	Yes	10	50	NS
	No	10	50	
<b>Radiotherapy</b>	Yes	18	90	<0.001*
	No	2	10	

# Results

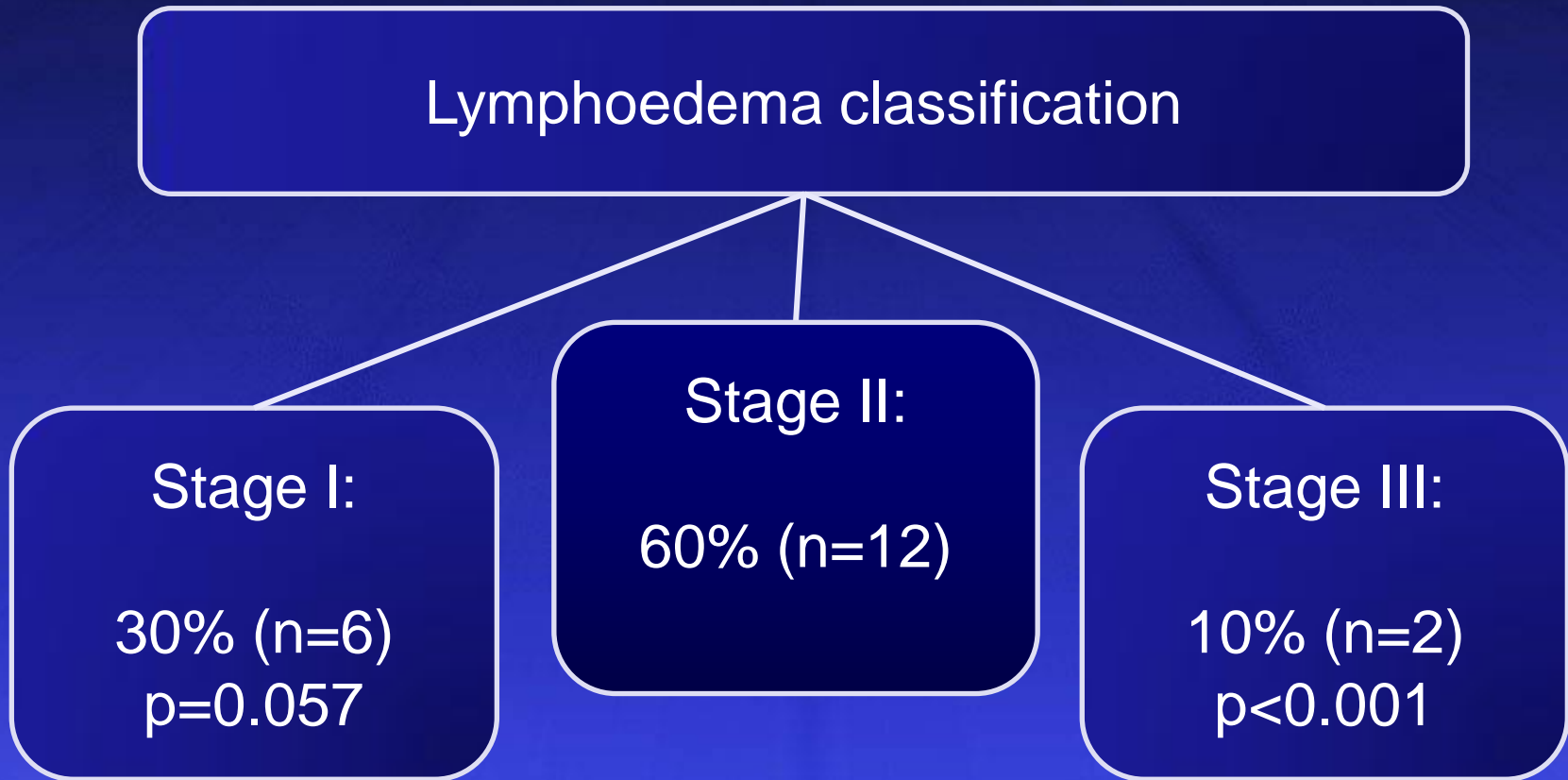
All patients had complaints

Pain (75%; n=15)  
Swelling (50%; n=10)

(p=0.102)

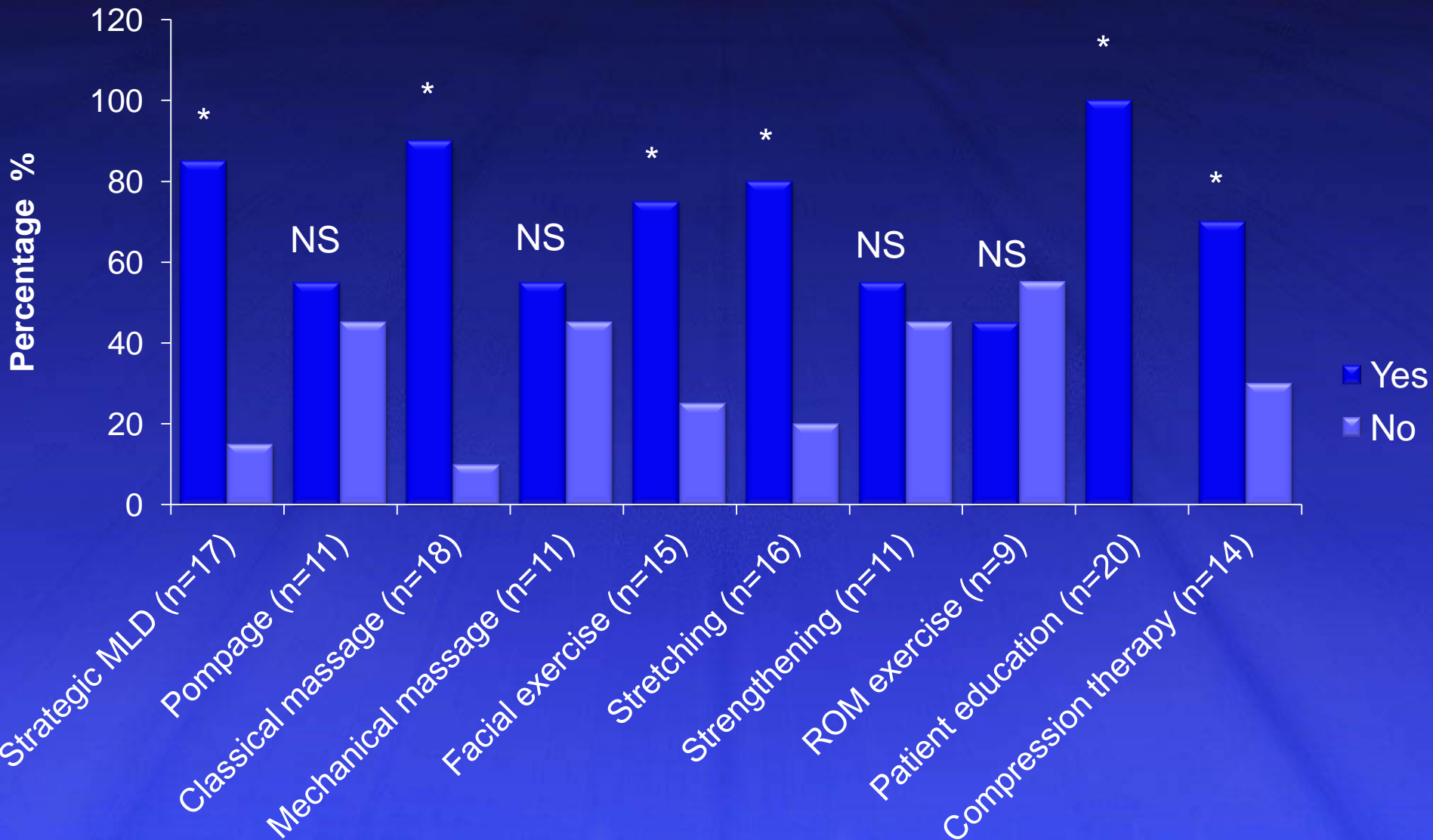
ROM limitations (30%; n=6)  
Muscle weakness (15%; n=3)  
Paresthesia (10%; n=2)

# Results



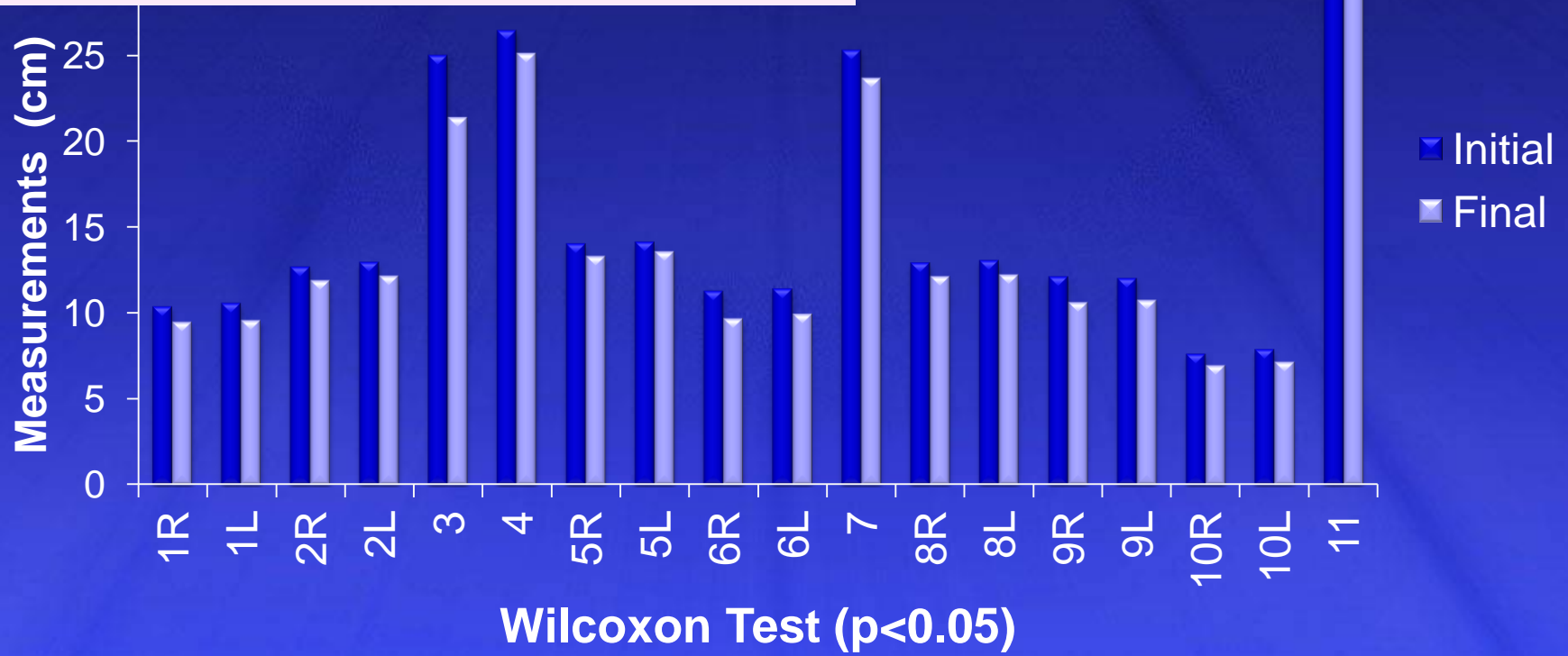
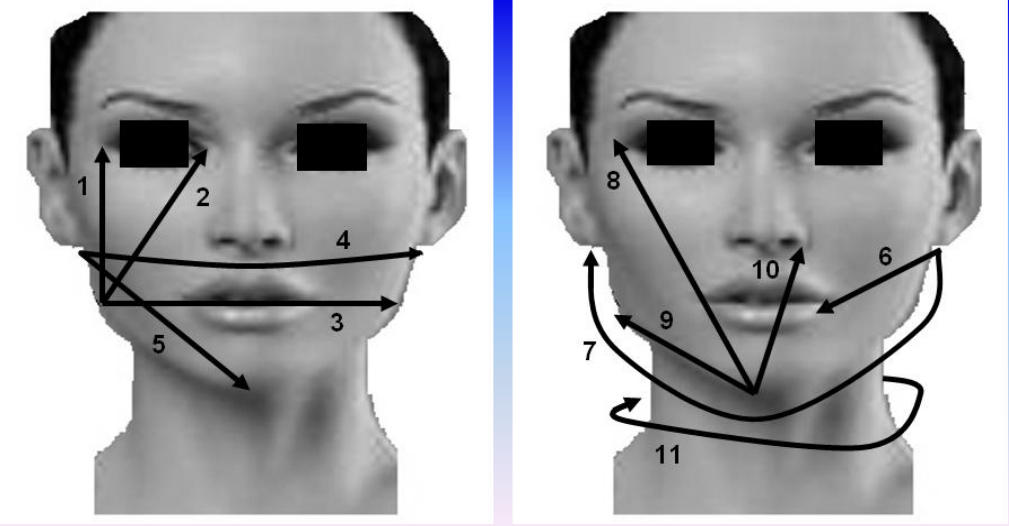
**Executive Committee of International Society of Lymphology (2009).  
Lymphology. 2009;42(3):51-60.**

# Physical Therapy Modalities



Test for equality of two proportions\*  $p < 0.05$ ; NS: Not significant

# Head and Neck Measurements



# Results

Pain	Before		After		p-value
	n	%	n	%	
Present	17	85	14	70	0.256
VAS	7.8±2.2		3.6±1.6		0.001

The mean number of sessions was  $23.9 \pm 14.8$ , performed twice a week

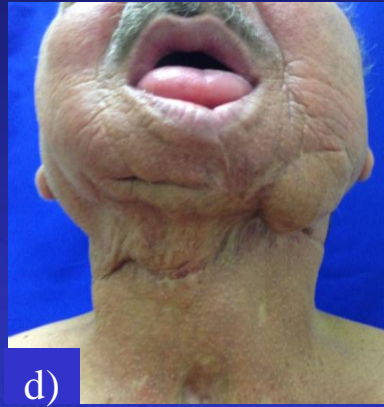
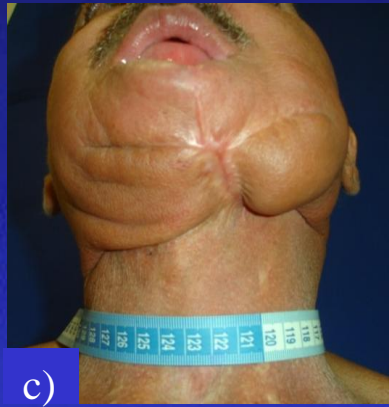
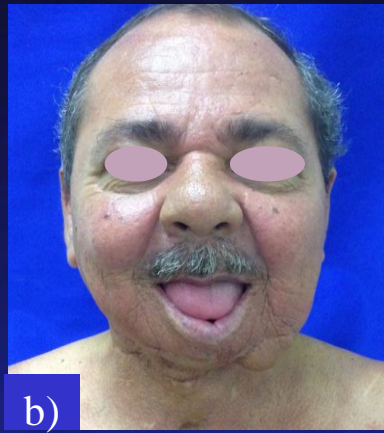
# Results

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	Outcome				
	Discharge	Treatment	Treatment Dropout	Disease complications	Death
n	12	5	1	1	1
%	60	25	5	5	5

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Test for equality of two proportions ( $p < 0.001$ )





# Conclusion

Physical therapy combined with MLD, massage, facial and stretching exercises, patient education and compressive therapy reduced the secondary lymphoedema and pain intensity of head and neck cancer treatment.

# References

- 1) Deng J, Murphy BA, Dietrich MS, Wells N, Wallstson KA, Sinard RJ, et al. Impact of secondary lymphedema after head and neck cancer treatment on symptoms, functional status, and quality of life. *Head Neck*. 2013;35(7):1026-35.
- 2) Deng J, Ridner SH, Murphy BA. Lymphedema in patients with head and neck cancer. *Oncol Nurs Forum*. 2011;38(1):E1-E10.
- 3) Executive Committee of International Society of Lymphology (2009). The diagnosis and treatment of peripheral lymphedema. Consensus Document of the International Society of Lymphology. *Lymphology*. 2009;42(3):51-60.
- 4) Tacani PM, Santos APR, Poscolere DD, Padilha QCSV, Amatu TKI, Montezello D, Pereira JF, et al. Protocolo de avaliação de linfedema de cabeça e pescoço. *Rev Bras Cir Cab Pesc*. 2010;39(2):126-30.

# Thank you!

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