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## LONG-TERM RESULTS OF LIPOSUCTION IN PATIENTS WITH LIPEDEMA.

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# LONG-TERM RESULTS OF LIPOSUCTION IN PATIENTS WITH LIPEDEMA.

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#### Introduction

Lipedema is a chronic, progressive disease in women with a circumscribed increase of subcutaneous fatty tissue in the legs, buttocks and/or arms. Further diagnostic criteria are: edema, spontaneous pain, sensitivity to pressure, and bruising after mild trauma. This can deteriorate into severe pain and reduced mobility. Dieting and physical exercise have only limited effect on the disproportionate body fat distribution. Whereas conservative methods with combined decongestive therapy, aiming to eliminate the edema have been well established over the past 50 years, surgical therapy with tumescent liposuction, which reduces the increased amount of subcutaneous fat, has only been used since the end of 2000. However, until now long-term results do not exist.

#### Objectives

- To determine the long-term efficacy of liposuction concerning physical affliction, visual appearance and life quality in patients with lipedema.
- To clarify whether decongestive conservative therapy (manual lymphatic drainage, compression treatment) can be reduced following surgery.

#### Study Design

- · Monocentric study
- 164 conservative pretreated patients with lipedema had undergone liposuction in tumescent local anesthesia with vibrating microcannulas between 2003 and 2009
- Following surgery 85 patients could be re-evaluated in 2010 (mean 3 years and 8 months) and in 2014 (mean 7 years and 8 months) with a standardized 7 items questionnaire

#### The 5-point questionnaire evaluated the intensity of:

0 = none

1 = minor

2 = medium 3 = strong

4 = very strong

- · Spontaneous pain
- · Pain upon pressure
- Edema
- Bruising
- · Restriction of movement
- Cosmetic impairment
- Reduction of quality of life.

The results of these 7 items were summarized to a total score 'general impairment'.

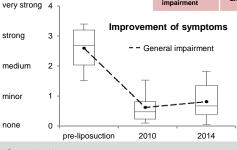
#### Results

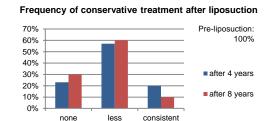
The liposuction resulted in a persistent improvement after 4 years and also after 8 years of:

- Spontaneous pain
- · Pain due to pressure
- Edema
- Bruising
- · Restriction of movement
- Cosmetic appearance
- Quality of life
- General impairment.

8 years after surgery 90 % of patients needed less or none conservative treatment (decongestive therapy, compression garment).

Questionnaire items	Pre-liposuction Mean ± SD		2010 Mean ± SD		2014 Mean ± SD		Variance analyses F p	
Spontaneous pain	1.86	1.33	0.37	0.61	0.37	0.57	88.6	<0.001
Pain upon pressure	2.88	1.01	0.85	0.86	0.94	0.95	154.1	<0.001
Edema	3.07	0.06	1.28	0.88	1.34	0.92	153.9	<0.001
Bruising	2.91	1.10	1.12	1.02	1.46	1.17	87.9	<0.001
Restriction to movement	2.11	1.30	0.24	0.58	0.53	0.69	129.4	<0.001
Cosmetic impairment	3.32	0.89	1.04	0.89	1.40	1.07	164.8	<0.001
Reduction of quality of life	3.35	0.84	0.73	0.87	0.94	1.00	271.0	<0.001
General impairment	2.78	0.72	0.81	0.56	1.00	0.66	327.6	<0.001





#### Conclusion

These results demonstrate for the first time the long lasting positive effects of liposuction in patients with lipedema.