

Uppdatering av vårdprogrammet för lymfödem

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Incidens – Armlymfödem

Sentinel node + strålbehandling mot bröst

| | | |
|------|----------------------------------|----|
| 2007 | Celebioglu et al. (2-3 år, n=30) | 0% |
|------|----------------------------------|----|

Axillär kirurgi + strålbehandling mot bröst

| | | |
|------|-------------------------------|-----|
| 2001 | Johansson et al. (2 år, n=16) | 19% |
|------|-------------------------------|-----|

| | | |
|------|----------------------------------|-----|
| 2007 | Celebioglu et al. (2-3 år, n=30) | 20% |
|------|----------------------------------|-----|

Axillär kirurgi + axillär strålbehandling

| | | |
|------|-------------------------------|-----|
| 2001 | Johansson et al. (2 år, n=19) | 37% |
|------|-------------------------------|-----|

| | | |
|------|-----------------------------------|-----|
| 2010 | Branje & Johansson (10 år, n=292) | 39% |
|------|-----------------------------------|-----|

| | | |
|------|-------------------------------|-----|
| 2012 | Jess & Johansson (2 år, n=20) | 36% |
|------|-------------------------------|-----|

Incidens - Benlymfödem

- **Gynekologisk cancer**

| | | |
|----------------|--------|-----|
| Cervix ca, kir | (1995) | 21% |
| kir + strål | | 31% |

- **Prostatacancer**

Utökad LK utrymn (Keegan et al. 2011) 0-10%

<10% volume diff 2

Palpable increase of 8

consistency

Pitting edema 4

Compression 3

stockings

Rasmusson et al. 2013

n=22

3-4 med ödem

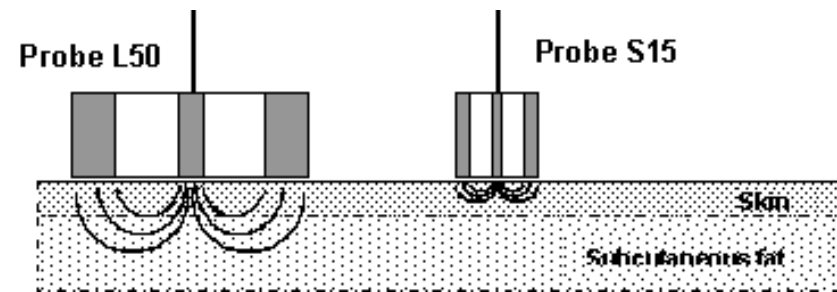
ca 15%

Breast edema

Incidence, ratio ≥ 1.3 (2 SD)

| | n | % |
|--------------------|-----|----|
| • Pre RT | 121 | 41 |
| • Post RT | 116 | 57 |
| • 4 weeks post RT | 103 | 56 |
| • 3 months post RT | 95 | 73 |
| • 6 months post RT | 73 | 80 |
| • 1 year post RT | 39 | 54 |

Moistermeter D



Lymphedema Relative Volume %

n=98

| | |
|--|-----------|
| At diagnose | 8,1±3,6 % |
| At follow-up mean 4 years after diagnosis | 9,0±6,7 % |

Acta Oncologica 2010;49(2):166-73.

Översiktsartiklar RCT

- 2008 Preston mix (3) Cochrane
- 2009 Kärki BCRL (14) Review
- 2010 Devoogdt BCRL (11) Review
- 2011 McNeely mix (25) Review+meta

80% BCRL

Bedömning (evidence level 1-4)

Kompressionsärm/handske



3 studier n = 109

Måttlig evidens (2)

Störst minskning 24%

Enkel och relativt billigt

Bandagering



1 studie, n=90

Störst minskning 60%

Måttlig evidens (2)

Enkel och relativt billigt

Tillägg av MLD till kompression Meta analys

Conservative Treatment for Lymphedema/McNeely et al

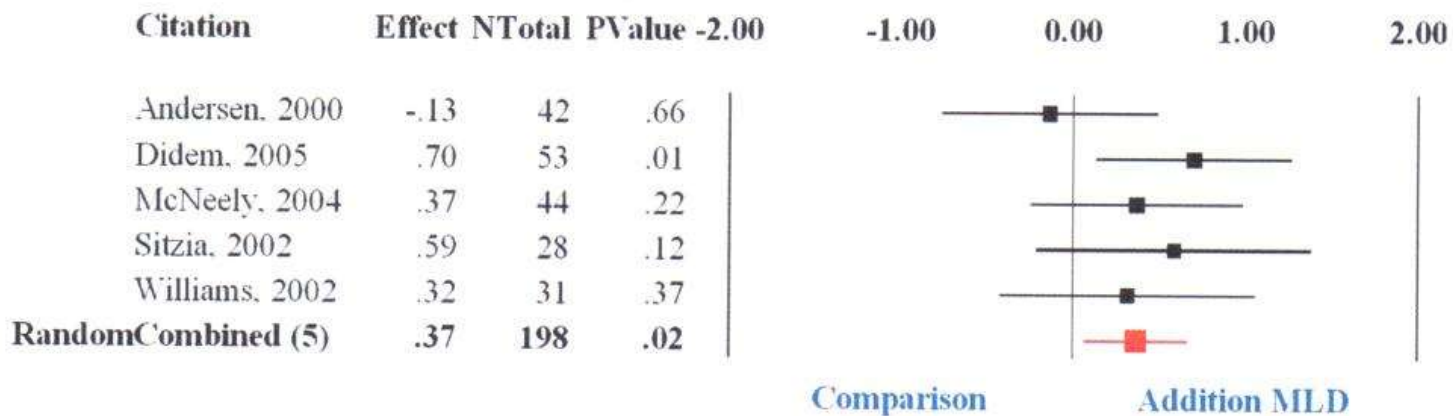


Figure 1. Relative benefit from the addition of MLD in reducing upper extremity lymphedema volume in breast cancer postintervention.

Revidering SoS Nationella riktlinjer
Liten effekt (-12 till 19,2 %enheter), låg evidens

Lymfpulsatorbehandling



4 studier, n=170

Störst minskning 25%

Begränsad evidens (3)

Revidering SoS Nationella riktlinjer

2 veckor – lite effekt, låg evidens

2 mån – hög effekt, låg evidens

Lymfpulsatorbehandling

- Rekommenderat tryck 25-50 mmHg (Feldman et al. 2012)
- Trycket i vävnaden är i medeltal 20 mmHg lägre än vad displayen visar (Olszewski et al. 2010)
- Transportkapaciteten ökade hos 4 av 6 BCRL (Adams et al. 2010)
- Bandagering kan ge < 120 mmHg (Partsch et al. 2008)
- Enkammar ger samma resultat som 3-kammar ev pga “muskelpumpseffekt” (Pilch et al. 2009)
- Hembehandling minskar MLD klinikbesök från 60% till 13% (Ridner et al. 2008)

Progressive weight-lifting

- 3 sets x 10 repetitions/set → 5 weeks group
- No change in symptom after 2 sessions
- Smallest possible increase
- No upper limit

- Increase in volume >5% → treatment
- Restart on lowest possible level

Conclusion

Breast cancer patients
can do progressive weight-lifting
without increased risk
to develop arm lymphedema

Schmitz KH et al. Weight lifting for women at risk for breast-cancer-related lymphedema.
A randomized trial. JAMA 2010; 304(24): 2699-2705

Mix of aerobic and resistance exercises

Breast cancer patients

- 2006 Ahmed et al. RCT n=45 mixed
- 2007 Courneya et al. RCT n=295 mixed
- 2009 Hayes et al. RCT n=14 LE
- 2009 Schmitz et al. RCT n=154 LE

No risk of worsening lymphedema

Conclusion

It makes no difference if you wear
compression sleeve or not
during exercise
as long as you put it on
immediately after
the exercise session.

Johansson K, et al. Low intensity resistance exercise for breast cancer patients with arm lymphoedema with or without compression sleeve. *Lymphology* 2005; 38: 167-180.

Leg lymphedema

- 10 patients with leg lymphedema
- Weight-lifting program
- 2 months supervised / 3 months unsupervised

Results

Both strength and walking speed increased with no worsening of the lymphedema

Pumping exercise?

n=6 healthy females

Lymphoscintigraphy

Handgrip contractions

12 X 2.5 min

75 contractions with 50% of max.

Arm crank ergometer

6 X 5 min

0.6 Watts.kg

($p \leq 0.001$)

Lane K, Worsley D, McKenzie D. Lymphoscintigraphy to evaluate the effect of upper body dynamic exercise and handgrip exercise on radiopharmaceutical clearance from hands of healthy females. *Lymphat Res Biol* 2005;3:16-24.

Results

n=23

Pole walking Prospective

m±SD

| | Start control | Start of intervention | End of intervention | |
|----------------------------------|------------------|--------------------------|------------------------|-----------|
| Aerobic capacity (pulse rate) | 134±11 | 132±11 | 127±12 | p=0.004 ↓ |
| Total arm volume Edema (ml) | 2749±603 | 2750±601 | 2699±590 | p=0.001 ↓ |
| Volume difference (ml) | 378±217 | 375±231 | 340±240 | p=0.014 ↓ |
| (%) | 16±7 | 15±8 | 14±8 | p=0.015 ↓ |

Fat tissue

- More patients are over-weight or obese in the group of BC patients with arm lymphedema than in BC patients without arm lymphedema
- In fat mice the frequency of lymph pumping activity is very slow and irregular compared to mice with normal weight. (Blum K, 2012)

Viktnedgång som behandling

- RCT
- n=24
- I: Diet (1000-1200 kcal/dag) i 12 veckor + ärm
- K: Kompressionsärm

| LRV, %, mean±SD | K | I | p-value |
|---|----------|-----------|---------|
| Start | 25 ± 8 | 24 ± 12 | |
| Wk 12 | 25 ± 7 | 15 ± 10 | |
| | 0 ± 4 | 10 ± 9 | .003 |
| Weight reduction (kg) | 0 ± 2.97 | 3.3 ± 2.6 | .02 |
| BMI reduction (kg/m ²) | 0 ± 2.97 | 1.3 ± 1.1 | .016 |

Länkar om lymfödem

<http://www.lymfologi.nu/>

länk till VP Lymfödem från 2003

Sök: international lymphedema framework
best practices - pdf

<http://www.vardhandboken.se>

sök Lymfödem bland "Alla ämnen"