

Mammachirurgie in dagbehandeling



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- Hester Oldenburg, chirurg
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- Amsterdam

NKI-AvL 2005

Breast conserving surgery (WLE / SN/ ALND)
in daycare
axillary drain after axillairy
clearance 5 days in situ



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Ablative surgery (Ablatio/ MRM)

mean admittance 6 days

axillary drain 5 days in situ



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Introduction

Trends in surgery: short stay

Breast surgery: the same

1986 Am J Surg, Cohen:

Early discharge after modified radical mastectomy

1992 Am Surg, Clark:

One-day hospitalization following
modified radical mastectomy



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Fast Track Breast Surgery

2003 Ann Chir, Arnaud:

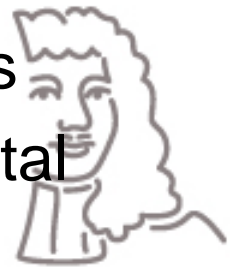
Women's preferences for early discharge after conservative breast surgery

Length of stay was related to:

- ASA score
- education level
- pain
- number of wound drains
- satisfaction about hospital

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Fast Track Breast Surgery

AVL/NKI breast cancer patient focus groups

Attention directed to:

1. good communication
2. peri-operative pain management
3. change in drain care

Fast Track Breast Surgery

Attention directed to:

1. good communication

Fast Track Breast Surgery

Attention directed to:

1. good communication
2. peri-operative pain management



Peri-operative pain management

Apfel CC et al. Anesthesiology 1999; 91:693-700

Watcha MF et al. Anesthesiology 1992; 77:162-84

1. Direct influence on length of hospital stay

2. Postoperative nausea and vomitus (PONV) is dependent of:

- Surgery
 - > pain > risk
 - > longer > risk
- Anesthesia
 - general/ regional
 - damps / N₂O > iv / air-O₂
 - opioïds
- Patiënten
 - young>old
 - female>male
 - non-smoker>smoker
 - carsickness>no carsickness
 - earlier PONV > non PONV
 - BMI>risk>

Perioperative pain management

Question:

Is simple regional infiltration anesthesia part of a multimodal traject to diminish PONV for surgery of primairy breast cancer ?

Eur J Anaesthesiol. 2008 Mar;25(3):253-5.

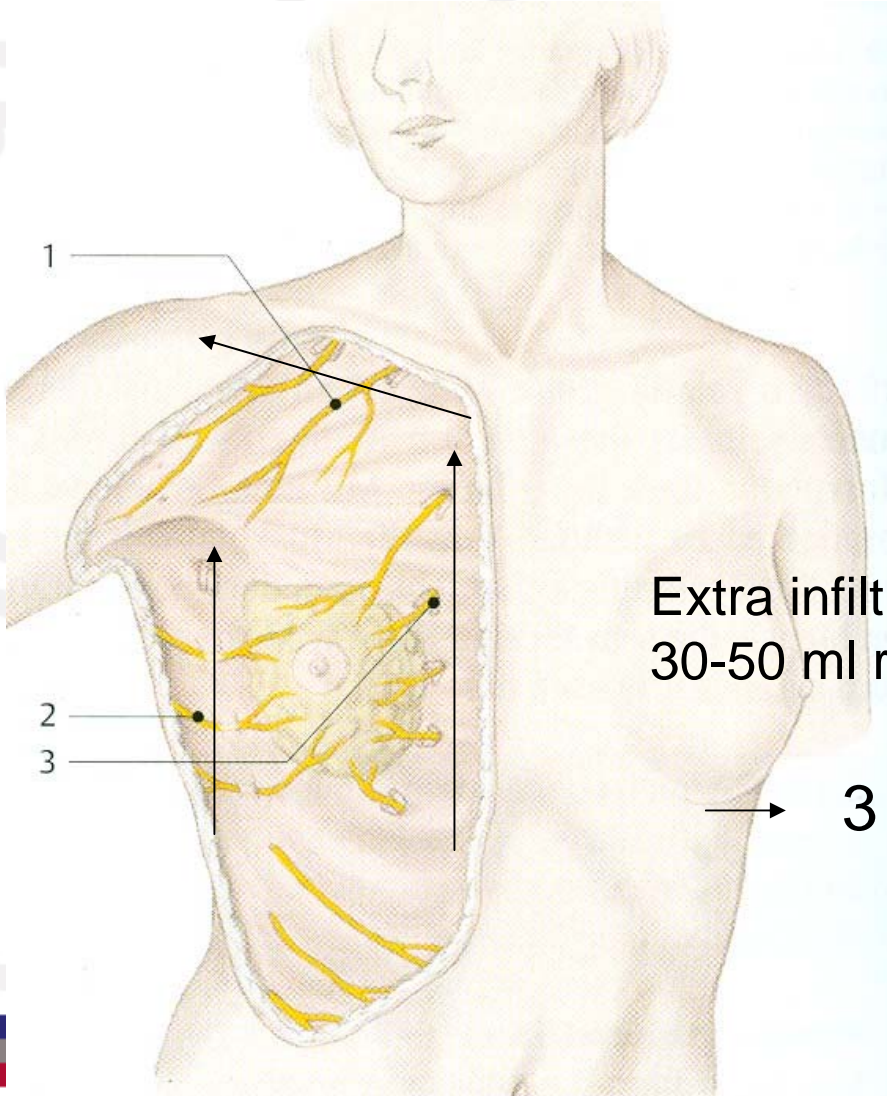
Field block: an additional technique of potential value for breast surgery under general anaesthesia. Buitelaar, Huitink, Oldenburg et al.

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Fast track breast surgery



Basic general anesthesia

Propofol +/- damp
Sufentanil
Atracurium, mivacurium or
rocuronium

Paracetamol

Diclofenac

Opioids

Extra infiltration anesthesia

30-50 ml ropivacaïne 0,5%

3 infiltration trajects

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Fast track breast surgery



Loco-regional anesthesia

Breast conserving surgery

Group 1: general anesthesia n = 56 patiënts

Group 2: general + loco-regional anesthesia n = 50 patiënts

Outcome parameters:

- Mean VAS-score at admittance and discharge recovery room
- use of analgetics in recovery room
- percentage of patients with rescue medication (morphine eq)
- PONV first 24 hours

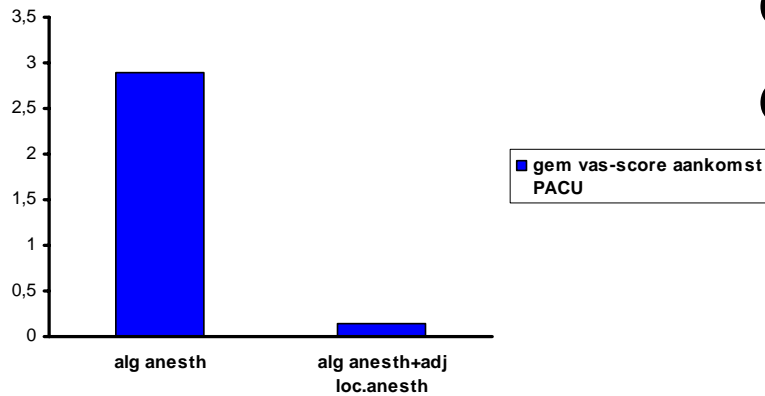
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Loco-regional anesthesia

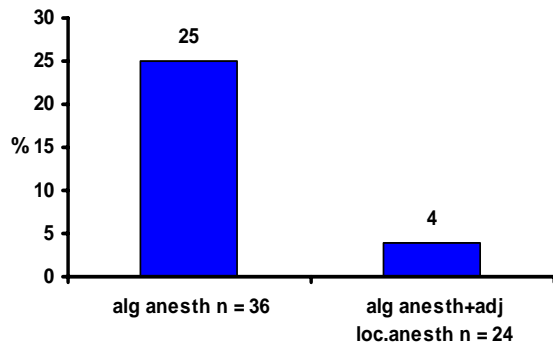
gemiddelde vas-score aankomst PACU



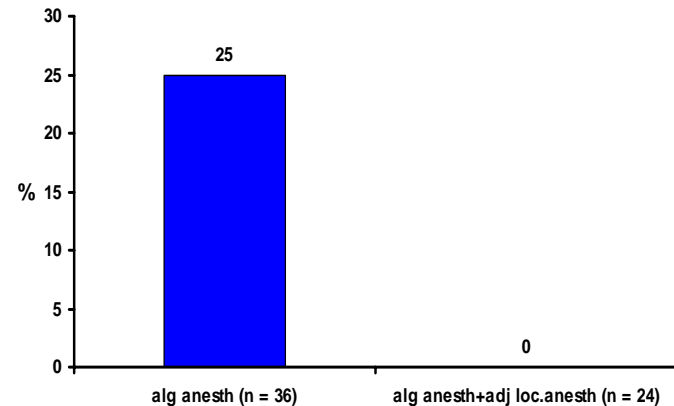
Group 1: general anesthesia n = 56

Group 2: general + loco-regional anesthesia n = 50

percentage misselijkheid (n = 60 patienten)



percentage braken (n = 60 patiënten)



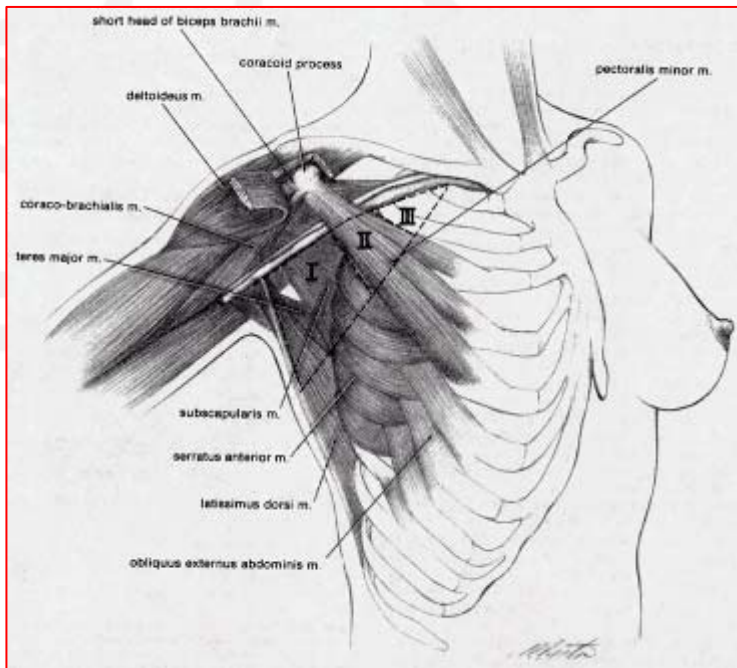
Fast Track Breast Surgery

Attention directed to:

1. good communication
2. peri-operative pain management
3. change in drain care

Why drainage after ALND?

Seroma production most common complication after axillary surgery



0 – 96 %

Definition?

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When seroma?

1990 Arch Surg, Petrek:

13 factors

- * many node positive nodes
- * earlier biopsy

1997 J Surg Oncol, Burak:

- * age
- * weight

Axillary drainage after ALND

Advantage Drainage:

less seroma

less pain

Disadvantage Drainage:

more pain
cannot easily drain

How

long?

longer hospital stay

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Length of axillary drainage

1997 *Ann R Coll Surg Engl*, Barwell:

n=63, drain 1-7 days dependent of production

51 % seroma needing aspiration

2001 *Eur J Surg Oncol*, Gupta:

n=64 5 days vs n= 57 8 days

5 days: 75 seroma aspirations / 13 759 ml

8 days: 42 seroma aspirations / 6275 ml

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Length of axillary drainage

2004 *Eur J Surg Oncol*, Dalberg (Zweden)

n=99 24 hr vs n=99 usual practice

48 % seroma

2 aspirations

4 % infections

22 % seroma

1 aspirations

3 % infections

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Length of axillary drainage

2005 *Breast*, Soon (Edinburgh)

36 no drain vs 51 24-48 hr drain

Table 2

	Drain		No drain	
Number seromas	34	94.4%	49	96.1%
Cumulative total seroma volume (ml)	538.8		856.7	
Mean number aspirations	4.0		5.4	
Mean days seroma persisted	25		34	
Mean length of inpatient stay (days)	1.9		1.9	

Table 3

	Drain		No drain	
Complications	12	33.3%	10	19.6%
Cellulitis, oral antibiotics	7	19.4%	6	11.8%
Cellulitis, IV antibiotics	1	2.8%	1	2.0%
Abscess, requiring drainage	1	2.8%	1	2.0%
Hematoma	1	2.8%		
Lymphoedema	1	2.8%	2	3.9%
Skin necrosis	1	2.8%		

= 24 hr drain



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Length of axillary drainage

1997 *Am Surg*, Liu:

n=50, drain for 24 hour

just one aspiration necessary

1995 *Arch Surg*, Jeffrey:

n=81, no drain

42 % aspiration necessary

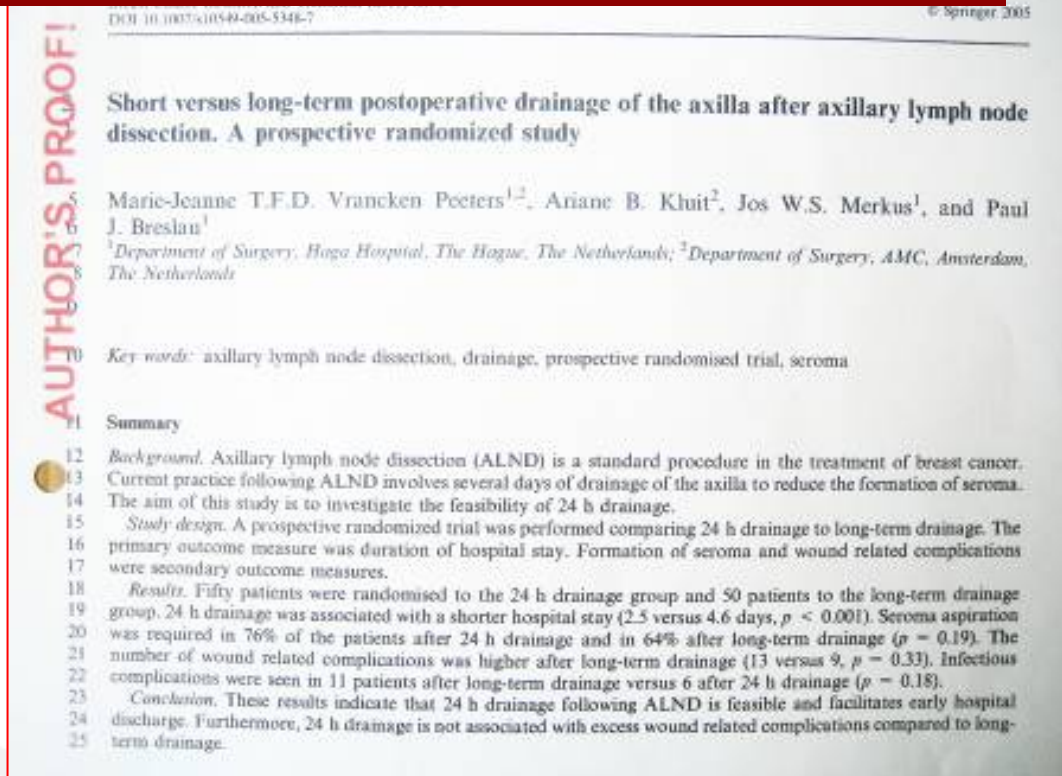
RCT Axillary Drainage study

Juli 2000 – Aug 2002

Total n=100

n=50 long drainage (7 days)

n=50 short drainage (24 hour)



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Methods

Patient characteristics:

Operation parameters
Pathology

Primary endpoint:

Length of hospital stay

Secondary endpoints:

Seroma formation
Complications

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Results

		Long	Short
Type Operation	MRM	38	34
	BCS	12	16
Operation Parameters	Earlier Biopty	23	20
	Length (min)	95	101
	Bloodloss (ml)	201	197
Tumor size	Tx	1	3
	T1	15	12
	T2	18	27
	T3	10	6
	T4	6	2
Type tumor	Ductal	37	41
	Lobular	7	7
	different	6	2



Results

	Long	Short
Lymphnode status		
total amount removed	13.2 \pm 4.9	13.3 \pm 5.1
N0	18	21
N1	32	29
amount positive	5.1 \pm 5.2	4.6 \pm 4.3



Primary endpoint

	Long	Short
Hospital stay (days)	4.6 ± 1.7	2.5 ± 1.2

p < 0.01
ARR 2.1 dgn (95 % CI 1.6-2.6)
NNT 0.5 (95 % CI 0.38-0.62)

Secondary endpoints

		Long	Short
Aspiration necessary		64 %	76 %
amount aspirations	0	18	12
	1-2	13	14
	3-5	15	17
	> 5	4	7



Secundairy endpoints

	Long	Short
Infections superficial	8	5
abcess	3	1
Wound necroses	2	3
Total	26 %	18 %

ARR 8 % (95 % CI -8-24)
NNT 12 (95 % CI -4-12)

Results

Short drainage

Drain volume

70 cc - 520 cc

Amount of aspirations

11 5

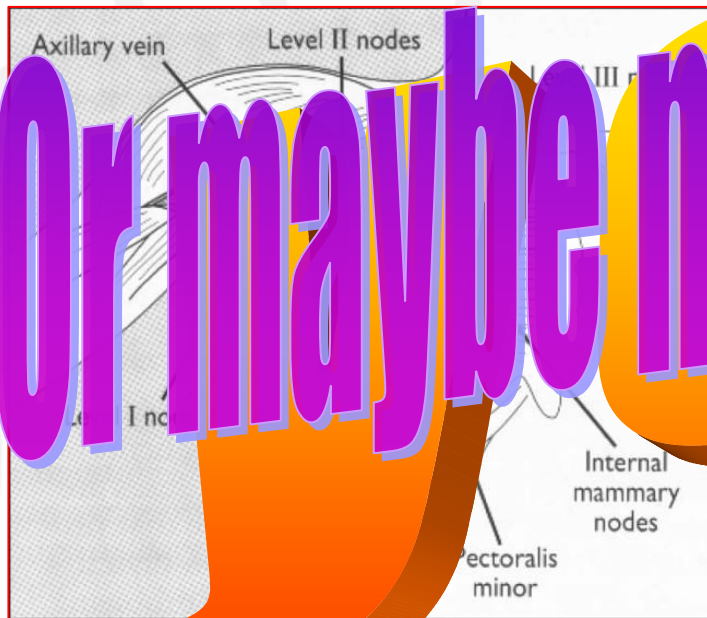
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Conclusion

Or maybe no drain at all?



possible?

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1. BCS and SN procedure in day clinic
2. Ablative surgery in 24 hour admittance
3. Drainage of the axilla: 24 hour: everyone discharged without drain!

Implementation

- Implementation of a short stay programme after breast cancer surgery
- Results in 4 hospitals:
- Short stay increase from 45% to 82%
- No increase in complications, readmissions, reoperations or number of outpatient visits

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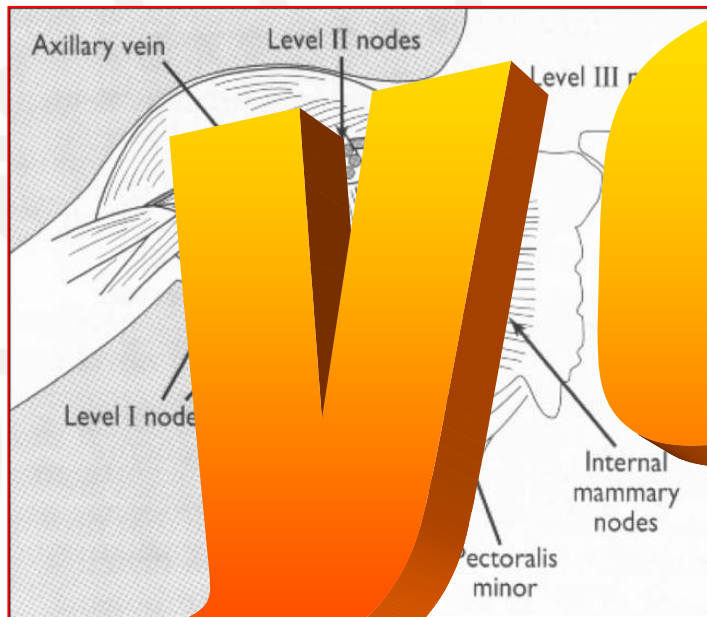
De kok et al. BJSurg 2010; 97: 189-194 Het Nederlands Kanker Instituut
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Implementation

- Increased chance of short stay were
 - breast conserving surgery,
 - having children and
 - being employed.
- Over 64 years of age showed a trend towards a decrease chance.



Conclusion



we

day of surgery is?

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Dank voor de aandacht. Vragen?

