

Complications of Axillary Dissection

Complications

	Seroma	Lymphedema	Sensory	Motion Restriction	Axillary Web	Infection
AND	0.24	0.34	0.38	0.86	0.72	0.09
SNB	0.07	0.06	0.14	0.45	0.20	0.03

Seroma

- Woodworth PA; McBoyle MF; Helmer SD; Beamer RL. Am Surg 2000 May;66(5):444-50

Seroma reduced with immediate breast reconstruction

2.5% vs 19.6%

Seroma

- Prevention of Lymphorrhea by Means of Fibrin Glue after Axillary Lymphadenectomy in Breast Cancer: Prospective Randomized Trial

F.N. Gillya, Y. François^{a,b}, A.C. Sayag-Beaujard^{b,c}, O. Glehen^b, A. Brachet^b, J. Vignala^b
European Surgical Research 1998;30:439-443

Fibrin glue seems to reduce daily postoperative drainage and hospital stay, but did not affect delayed seroma formation after axillary lymphadenectomy for breast cancer.

Seroma

- Reduced use of drains following axillary lymphadenectomy for breast cancer.

Suction drains - 9 Days	26.6
- 2 Days	25.7
- no drain	27.9
Days of fluid accumulation	

Talbot ML; Magarey CJ

ANZ J Surg 2002 Jul;72(7):488-90

Seroma

- Randomized clinical trial investigating the use of drains and fibrin sealant following surgery for breast cancer

BJS Volume 91, Issue 1 (January 2004)
P. K. Jain, R. Sowdi, A. D. G. Anderson, J. MacFie

Suction drain
26%

No drain
41%

No drain + fibrin sealant
34%

Seroma

Seroma

Gonzalez EA; Saltzstein EC; Riedner CS; Nelson BK
Breast J 2003 Sep-Oct;9(5):385-8

a seroma is a "necessary evil;" it will occur unpredictably in a predictable number of patients.

Lymphedema

Variable rates reported

Love et al Arch Surg 1990
2.7%

Blanchard et al Arch Surg 1999
34%

Higher rates from patient surveys and volumetric studies

Higher rates with increased BMI

Higher rates post radiotherapy and node dissection

Lymphedema

May appear years postop

Management problem

no study shows preferred management protocol
no study shows preferred prevention protocol

Raises question of cancer recurrence

Lymphedema

Prevalence and aetiology of lymphoedema after breast cancer treatment in southern Tasmania.

Aust N Z J Surg 2000 Jun;70(6):412-8

Edwards TL

Volumetric plus patient survey

11%

23.4%

Correlation with arm size , BMI ,type of surgery, tumour size or grade

No correlation with axilla irradiation, number of nodes removed, age or handedness

Sensory -intercostobrachial nerve

Preservation versus section of intercostal-brachial nerve (IBN) in axillary dissection for breast cancer--a prospective randomized trial.

Salmon RJ, Ansquer Y, Asselain B. Eur J Surg Oncol. 1998 Jun;24(3):158-61.

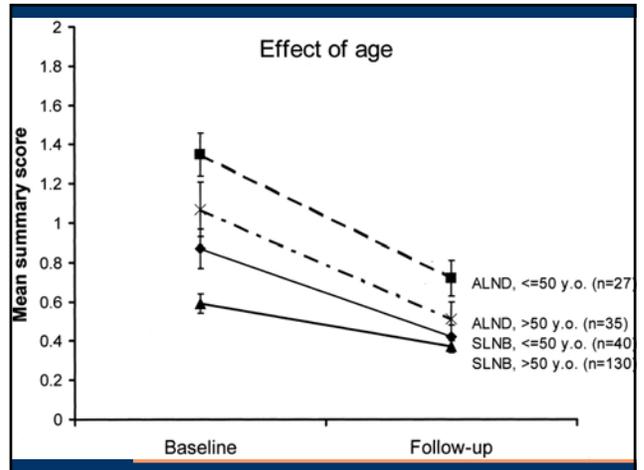
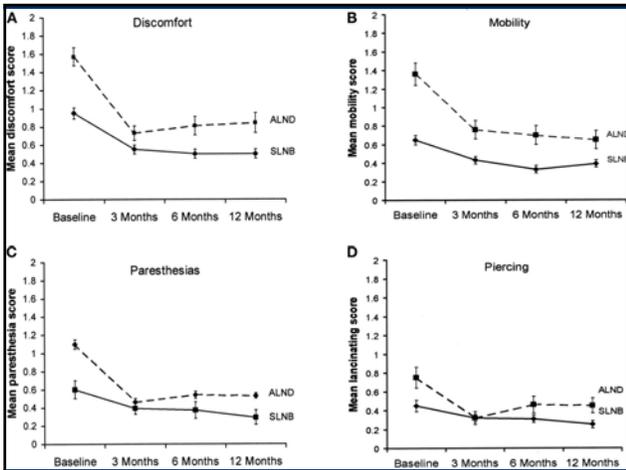
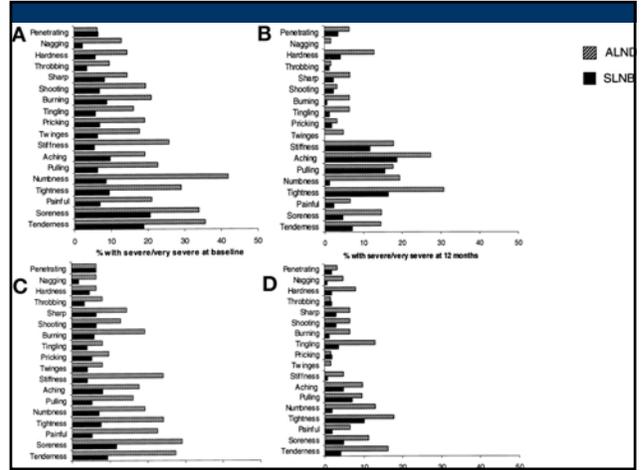
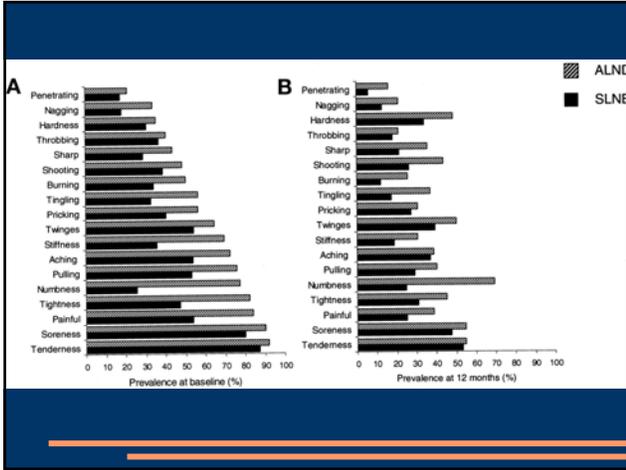
CONCLUSIONS: Conservation of the IBN, while anatomically preferable, is not functionally necessary during axillary dissection for breast cancer.

Sensory

Sensory Morbidity After Sentinel Lymph Node Biopsy and Axillary Dissection: A Prospective Study of 233 Women

Larissa K. F. Temple, MD, MSc, Roberta Baron, MSN, AOCN®, Hiram S. Cody, III, MD, Jane V. Fey, MPH, Howard T. Thaler, PhD, Patrick I. Borgen, MD, Alexander S. Heerdt, MD, Leslie L. Montgomery, MD, Jeanne A. Petrek, MD and Kimberly J. Van Zee, MS, MD

From the Department of Surgery (LKFT), Breast Service (RB, HSC, JVF, PIB, AH, LM, JAP, KJVZ), and the Department of Biostatistics (HTT), Memorial Sloan-Kettering Cancer Center, New York, New York.



Influence of the timing of physiotherapy upon the lymphatic complications of axillary dissection for breast cancer.

Rodier JF, Gadonneix P, Dauplat J, Issert B, Giraud B.

Centre Jean Perrin, Clermont-Ferrand, France.

Delaying physiotherapy after axillary dissection for breast cancer does not seem to reduce the incidence of lymphatic complication, but the use of a conservative procedure rather than a modified radical mastectomy seems to be able to do so.

Motion impairment

Recovery of upper limb function after axillary dissection.

Gosselink R, Rouffaer L, Vanhelden P, Piot W, Troosters T, Christiaens MR.
J Surg Oncol. 2003 Aug;83(4):204-11.

Three months after surgery for breast cancer, impaired shoulder mobility, and ADL persisted in a substantial number of patients. Type of surgery and axillary irradiation contributed significantly to upper limb recovery

Motion impairment

Upper Extremity Rehabilitation after Axillary Dissection for Breast Cancer

Pre-operative

Post-operative physical therapy should begin the first day following surgery

Active stretching exercises can begin 1 week after surgery, or when the drain is removed, and should be continued for 6-8 weeks or until full ROM is achieved in the affected upper extremity. Women should be instructed in scar tissue massage

Hand and Arm Care

BC Cancer Agency





Axillary web syndrome

Axillary web syndrome after axillary dissection.

Moskovitz AH, Anderson BO, Yeung RS, Byrd DR, Lawton TJ, Moe RE.

Am J Surg. 2001 May;181(5):434-9.

postoperative pain and limited range of motion associated with a palpable web of tissue extending from the axilla into the ipsilateral arm.

6 % 1-8 weeks postop

resolved in 2 – 3 months

Axillary web

Motion restriction and axillary web syndrome after sentinel node biopsy and axillary clearance in breast cancer.

Leidenius M, Leppanen E, Krogerus L, von Smitten K.

Am J Surg. 2003 Feb;185(2):127-30

Prospective study

Axillary web incidence

AND	72 %
SNB	20 %

Complications

	Seroma	Lymphedema	Sensory	Motion Restriction	Axillary Web	Infection
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Conclusions

Complications proportional to extent of surgery

Extent of surgery should relate to objective of surgery

Indications

- . Staging
- . Local control
- . Curative intent