



CIBC 2019

Surgical Management of Breast Cancer

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Chicago International Breast Course
The Westin Chicago River North
November 1-3, 2019

No disclosures



Surgical Options for Breast Cancer

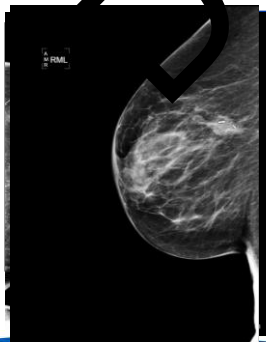
Breast conservation: lumpectomy + radiation
vs
• Mastectomy, with/without reconstruction

No differences in recurrence rates or overall survival

- Bilateral mastectomy (CPM)



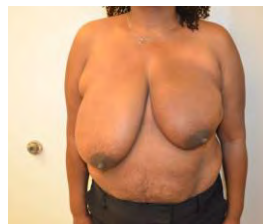
Breast conservation



- Radiation:
- 5 days/wk for 4 wks
 - well tolerated
 - skin effects



Can we improve breast conservation?





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Oncoplastic Surgery - definition

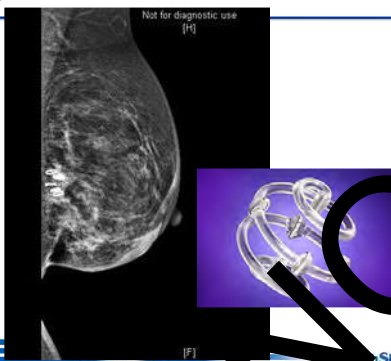
“A form of breast conservation surgery that includes oncologic resection with a partial mastectomy, ipsilateral reconstruction using volume displacement or volume replacement techniques with possible contralateral symmetry surgery when appropriate”



Oncoplastic Surgery



Biozorb



Oncoplastics - classifications

Volume displacement	Examples:
Level 1: $<$ 20% breast tissue removed	Local tissue rearrangement Crescentic mastopexy Doughnut mastopexy
Level 2: 20-50% breast tissue removed	Circumvertical mastopexy design Reduction mammoplasty design
Volume replacement	Examples:
$>$ 50% breast tissue removed	Implant based reconstruction Local/regional flap reconstruction

Donker Lancet Oncol 2014; 15:1303-10



Can we improve breast conservation? – YES!



Can we improve breast conservation? – YES!





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Mastectomy



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Mastectomy



- pec remains
- nipple removed
- permanent numbness
- prosthetic for bra

How have we improved mastectomy outcomes?

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Nipple sparing mastectomy +recon



Before surgery



After surgery

- Nipple/skin envelope not altered
- Improved cosmetic outcomes, however

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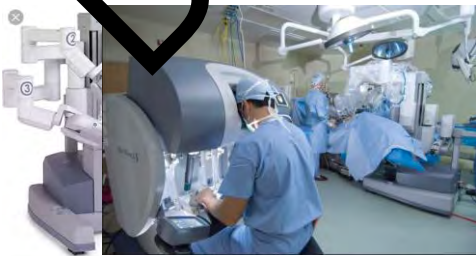
Nipple sparing mastectomy

Increased complication rates

- Nipple, flap necrosis
- No nipple sensation
- Only 10% of surgeons routinely perform
- Tough on the surgeon, limited exposure

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Robotic nipple sparing mastectomy



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IEO
European Institute of Oncology

Peri-operative Data

	Open N=40	Robotic N=40	p-value	
	Mean ± SD (IQR)	Mean ± SD (IQR)		
Surgey time	2.3 ± 0.8 (2h-36min)	3.6 ± 0.8 (3h-36min)	<0.0001	
Mastectomy procedure time	1.0 ± 0.4 (1h-20min)	1.8 ± 0.7 (1h-48min)	<0.0001	
Reconstruction procedure time	1.1 ± 0.6 (1h-24min)	1.4 ± 0.6 (1h-24min)	0.009	
Estimated blood loss (drainage ml)	209 ± 146	202 ± 98	0.69	
Length of hospital stay- admission to discharge (days)	2.4 ± 0.6	2.3 ± 1.2	0.04	
Robotic cases converted to open	-	0		
Reconstruction	Immediate reconstruction with implant Reconstruction with Expander	29 11	35 5	0.16
Postoperative Pain	Mean ± SD NRS 0-1 NRS2 NRS3-4-5-6	2.0 ± 1.1 10 24 6	2.3 ± 1.1 5 26 9	0.29 0.36

Toesca ASBrS 2019

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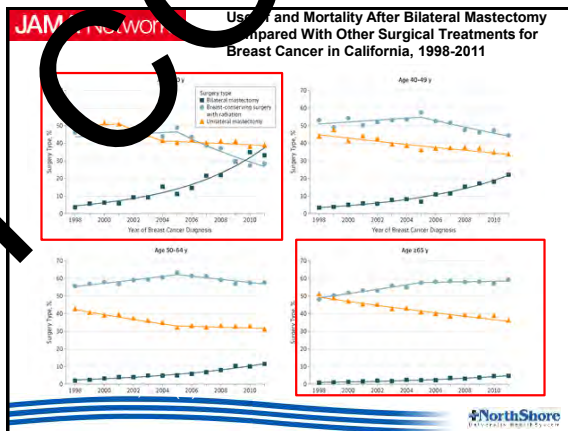
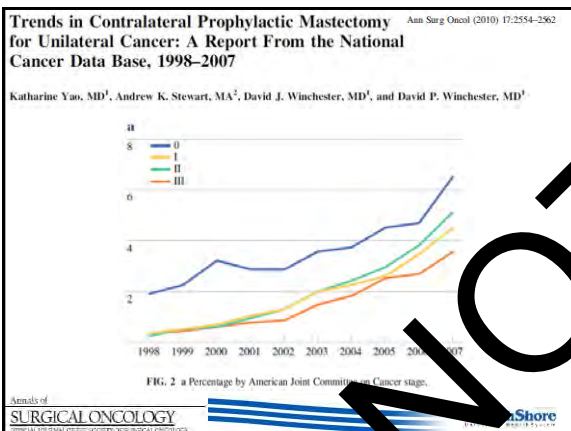
Robotic nipple sparing mastectomy

- Smaller, less visible scar in axilla
- Better ergonomics for surgeons, enhanced visualization
- Less invasive
- Less complications



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Bilateral mastectomy (C)



Bilateral mastectomy – THE GOOD

- Decrease anxiety, “peace of mind”
- no need for future mammograms
- desire for symmetry
- no need for radiation

“Just don’t want to go through this again”



Most women don’t get breast cancer twice

- 10 year risk for metachronous contralateral breast cancer (CBC) is 5-10% for average risk patients.

Relevance of breast cancer hormone receptors and other factors to the efficacy of adjuvant tamoxifen: patient-level meta-analysis of randomised trials

Early Breast Cancer Trialists’ Collaborative Group (EBCTCG)

ER Status	Annual CBC risk
ER Positive	0.4%
ER Negative	0.5%

Lizarraga IM Am J Surg 2013
Lancet 2011;378:771–784





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On average, women perceive their 10-year cumulative risk for CBC to be 31.4% (~BRCA carrier!)

Table 2. Importance of Reasons Identified by Women for Choosing CPM*

Reason	Extremely important	Very important
Desire to lower the chance of getting cancer in other breast	102 (83)	18 (15)
Desire for peace of mind	98 (80)	18 (15)
Desire to improve survival or extend life	97 (79)	18 (15)
Desire to prevent breast cancer from spreading to other parts of body	85 (69)	20 (16)
Feeling at increased risk for cancer in other breast	81 (66)	26 (21)
Worry that screening would not find cancer in other breast	39 (32)	21 (17)
Strong family history of breast cancer	35 (28)	11 (9)
Desire to have both breasts look the same after surgery	34 (28)	36 (29)
Known genetic change, such as BRCA1 or BRCA2 mutation	32 (26)	2 (2)
Desire to follow physician's recommendation	22 (18)	16 (13)
Desire to make breasts look better	13 (11)	20 (16)
Advice from family or friends	6 (5)	11 (9)

Abbott A. Ann Surg Oncol 2011
Rosenberg SM. Ann Inter Med 2013



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No survival benefit has been shown from bilateral mastectomy

Operative Risks Associated with Contralateral Prophylactic Mastectomy: A Single Institution Experience

Megan E. Miller, MD¹, Tomasz Czechura, MPH², Bridget Martz, CCRP², Mary E. Hall, BS², Catherine Pesce, MD^{1,2}, Nora Jaskowiak, MD¹, David J. Winchester, MD^{1,2}, and Katharine Yao, MD^{1,2}

- Complication rates
 - 41.6% (bilateral) vs 28.6% (unilateral)
- Bilateral patients 1.5x more likely to have any complication
- Bilateral patients 2.7x more likely to have a major complication

Yao K. Ann Surg Oncol 2013



The screenshot shows a decision support tool with three columns: Lumpectomy, Single Mastectomy, and Double Mastectomy. It includes sections for 'How surgery affects survival and recurrence' and 'How surgery affects you physically'.

The poster features a woman's back with a red box highlighting the text: "What if I decide to just do nothing?". Below the image, it says "Breast cancer's new frontier".

DCIS (ductal carcinoma in situ)

NON-INVASIVE

Invasive breast cancer

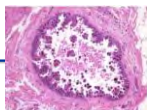
INVASIVE



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DCIS



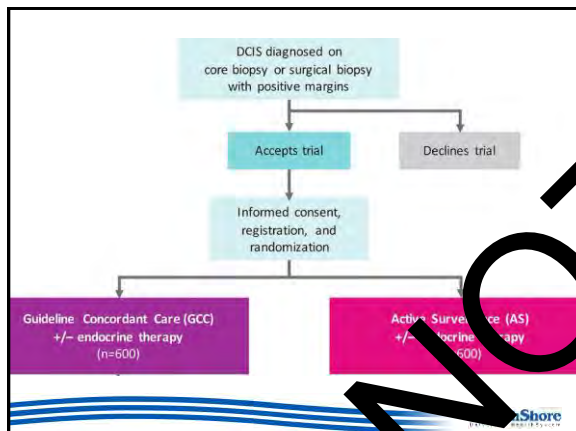
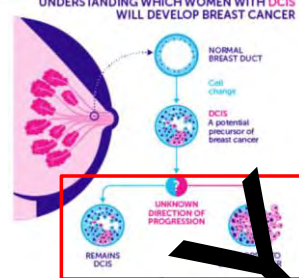
- precancer, preinvasive cancer
- Estimated incidence: 60,000+ new cases annually in US
- Calcifications on mammogram in asymptomatic patients
- DCIS now comprises over 20% of all mammographically detected breast cancer
- *Rate and likelihood of progression are unknown*



COMET

A Study for Low Risk DCIS
Expanding Knowledge and Options

Comparison of Operating to Monitoring, with or without Endocrine Therapy



COMET

Start date 2/2017; estimated completion 07/2020

- Endpoints:
 - 2,5,7 year invasive cancer diagnosis
 - 2,5,7 year OS, DFS
 - PRO outcomes
 - » QOL, fear of cancer recurrence, body image



Surgical Management of Breast Cancer

- BCT Oncoplastic surgery
- Mastectomy NSM, ?robotic surgery
- CPM Informed decision making

The COMET trial for DCIS is answering an important question, (aka when not to cut)



“Without continual growth and progress, such words as improvement, achievement, and success have no meaning.”

-Ben Franklin

Thank you!

