

# Surgical Management of the Breast in Breast Cancer

Cancer Education Day October 2017  
Windsor, Ontario

# Breast Cancer

- Current Rate 1 in 8 Canadian women will develop breast cancer in her lifetime
- Most common invasive ductal carcinoma
- Breast cancer 5 year survival by stage
  - > Stage I--- approaches 100%
  - > Stage II— 93%
  - > Stage III—72%
  - Stage IV-- 22%



YES, I DID HAVE MY MAMMOGRAM  
TODAY... WHY DO YOU ASK?

# Breast Conservation Treatment (BCT)

## ● ADVANTAGES

- Good cancer outcomes
- Breast conservation
- Smaller operation (avoid reconstruction)

## ● DISADVANTAGES

- Radiation
- Reoperation
- Cosmetic deformity

# Why Not Breast Conservation?

- Large tumor small breast (neoadjuvant therapy)
- Multiple tumors, (especially multiple quadrants)
- Previous radiation therapy (or other contraindication to XRT)
- Previous lumpectomy?
- Family History?

# Risk for Local Recurrence following Breast Conservation Treatment

Tumor Factors	Treatment Factors	Patient Factors
Size	Close Margin	Young age
Nodal Status	Positive Margin	African-American race
Grade	Radiation Therapy	
Type	Systemic Therapy	
Vascular invasion		
Receptor Status		

OF COURSE they're FAKE! I saw  
her at the SNOW CONE stand  
yesterday!



P  
TIRARO

# Mastectomy

- ◉ Good cancer outcome
- ◉ Lower local recurrence rate
- ◉ Usually does not require radiation therapy
- ◉ Avoidance of a second operation (reconstruction?)
- ◉ Occult malignancy
- ◉ Family history (BRCA1,2)



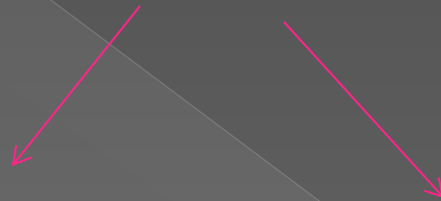
# Overall Survival and Isolated Local Recurrence Rate in Six Prospective Randomized Trials in Stage I to II Breast Cancer

TRIAL	# PTS	Overall Survival		Local Recurrence (%)		INTERVAL REPORT
		MASTECTOMY	BCS +XRT	MASTECTOMY	BCS+XRT	
NSABP	1217	47	46	10	14	20 yrs
Milan	701	59	58	2	9	20 yrs
NCI	273	58	54	0	22	20 yrs
Danish	731	51	58	21	13	20 yrs
IGR	179	65	73	18	13	15 yrs
EORTC	868	66	65	12	20	10 yrs

# What About The Other Side?

## (Contralateral Prophylactic Mastectomy)

- What is the risk of cancer in the opposite side?



Average Risk  
(the majority)

Increased Risk  
(the minority)

# Average Risk

- Mortality risk of current cancer is almost always higher than the potential cancer on the other side
- Risk of contralateral breast cancer is  $\leq 0.7\%$  per year (Robbins GF, Berg JW: Bilateral primary breast cancers. A prospective clinicopathologic study. Cancer 17:1501-1527, 1964)
- Risk of death from CBC is even smaller  $< 0.1\%$  per year
- Role of chemotherapy reduction
- Anxiety Reduction?

# Increased Risk

- Family History , BRCA-1, 2, Li Fraumeni or Cowden Syndrome
- Age at diagnosis

# Relative Risk of a Second Breast Cancer by Age at Diagnosis of First Cancer

Age at First Cancer	Prior 1936-1964		Hankey 1935-1975		Haagensen 1938-1979	
	# of Cases	RR	# of Cases	RR	# of Cases	RR
< 45 yrs	89	5.3	430	5.7	45	5.9
45-54yrs	118	3.4	454	3.6	48	3.2
>54 yrs	103	1.3	660	2.4	45	2.3
Total	310	2.4	1544	3.2	138	3.3



*“When are you gonna get your breasts removed, like Angelina Jolie?”*

# Prophylactic Mastectomy for those of Increased Risk

- Good for “prevention” in BRCA1,2 carriers

(Hartmann LC, Schaid DJ, Wood JE et al: Efficacy of bilateral prophylactic mastectomy in women with a family history of breast cancer. N Engl J Med 340:77-84, 1999) (McDonnell, SK, Schaid DJ, Myers, JL, et al: Efficacy of contralateral prophylactic mastectomy in women with a personal and family history of breast cancer. J Clinical Oncol 19: 3938-3943, 2001.)

- Rates of contralateral prophylactic mastectomy in high risk groups vary by age of diagnosis, type of initial cancer surgery and use of prophylactic oophorectomy

(Metcalfe KA, Lubinski J, Ghadirian P, et al: Predictors of contralateral prophylactic mastectomy in women with a BRCA1 or BRCA2 mutation: The Hereditary Breast Cancer Clinical Study Group. J Clin Oncol 26: 1093-1097, 2008)

- Studies are variable as to survival benefit

# Thank You

**BETWEEN FRIENDS**

**BY SANDRA BELL LUNDY**

