The Rise in the Rates of Contralateral Prophylactic Mastectomy: Can We Personalize this Decision?

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Disclosures
• I have nothing to disclose.

Outline
• National trends in the surgical management of breast cancer
• Experience at UCSF
• Outcomes after contralateral prophylactic mastectomy
• Risk factors associated with contralateral breast cancer
• Opportunities for shared decision making

Trends in the Surgical Management of Breast Cancer
Demographic Factors Associated with Choice of Surgical Procedure

- Bilateral mastectomies performed more if:
  - Age <50
  - Non-Hispanic White
  - Private Insurance
  - High SES Neighborhood
  - Treatment at an NCI-designated cancer center
**UCSF TSSM Trends**

- In BRCA mutation negative women, bilateral TSSM performed more if:
  - Younger age
  - Strong family history of breast/ovarian cancer
  - Younger age of relatives diagnosed with breast/ovarian cancer

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**Explanations for the Trend**

- **Desire to:**
  - Reduce risk of contralateral breast cancer
  - Prolong survival
  - Have peace of mind*

- Improved mastectomy techniques and post-mastectomy reconstruction options

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Outcomes after Contralateral Prophylactic Mastectomy

- All contralateral prophylactic mastectomy recipients had:
  - No absolute reduction in the risk of contralateral breast cancer
  - Higher rates of overall survival
  - Lower rates of breast cancer-specific mortality

- Contralateral prophylactic mastectomy recipients with elevated familial and genetic risk had:
  - Decreased risk of contralateral breast cancer (RR 0.04)
  - No improvement in overall survival or breast cancer-specific mortality

Outcomes after Contralateral Prophylactic Mastectomy

- Contralateral prophylactic mastectomy patients were:
  - 1.5 times more likely to have any complication
  - 2.7 times more likely to have a major complication*

- Patients experience diminished feelings of femininity, self-esteem and sexuality following bilateral mastectomy


What can we do to help our patients make informed decisions regarding contralateral prophylactic mastectomy?

Provide them with personalized information about their risk of developing a contralateral breast cancer.
Risk Factors for Contralateral Breast Cancer

• Strong risk factors
  ▫ Early age at initial diagnosis
  ▫ Family history of breast cancer
  ▫ Estrogen receptor negative disease

• Moderate risk factors
  ▫ Obesity
  ▫ Regular alcohol consumption
  ▫ Lobular histology

Risk Factors for Contralateral Breast Cancer

• Presence of genetic mutation
  ▫ BRCA 1/2
    ▪ 10-year risk of contralateral breast cancer = 25-30%
    ▪ Life time risk as great as 50% (BRCA1)
  ▫ CHEK2
    ▪ 10-year risk of contralateral breast cancer = 10-20%
  ▫ PALB2
  ▫ Single nucleotide polymorphisms (SNPs)
    ▪ Small variations in genes from one individual to the next

Risk Factors for Contralateral Breast Cancer

Opportunities for Shared Decision Making

• Deliver personalized risk information to patients

• Assess what is driving a woman’s choice to undergo contralateral prophylactic mastectomy
  ▫ Desire to prolong survival? Fear of recurrence? Ease of surveillance?
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- The rates of contralateral prophylactic mastectomy are increasing, especially among young women.
- Contralateral prophylactic mastectomy provides no clear benefit for a woman at average risk of developing a contralateral breast cancer.
- Young women, women with a strong family history, women with ER- disease and women with certain genetic mutations are at increased risk of developing contralateral breast cancer.
- Participate in shared decision making.

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