

# SEXUALITY AND BREAST CANCER



**Leah S. Millheiser, MD**

Clinical Assistant Professor

Director, Female Sexual Medicine Program

Stanford University School of Medicine

Department of Obstetrics & Gynecology

# BREAST CANCER AND FEMALE SEXUAL DYSFUNCTION

- National Cancer Institute:
  - Majority of sexual complaints resolve within 1 year of diagnosis
  - 50% of women with breast or gynecologic cancers will experience sexual dysfunction following treatment

# BREAST CANCER AND FEMALE SEXUAL DYSFUNCTION

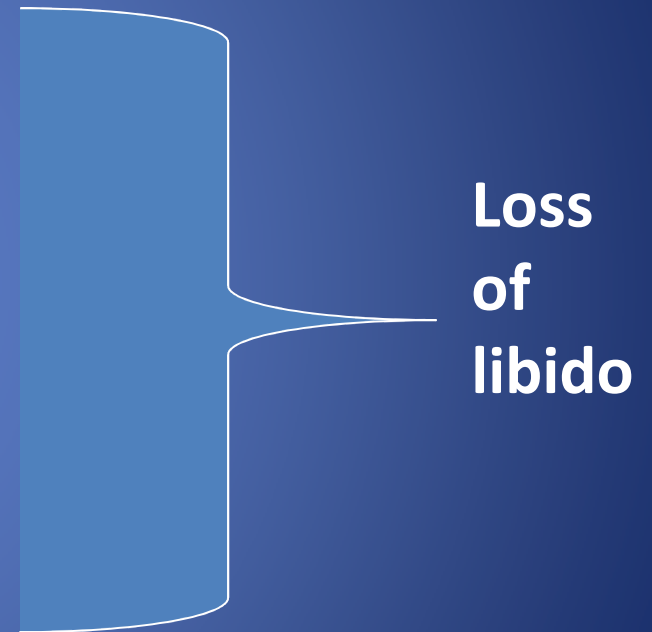
- **Loss of desire for sex**
- Pain with genital manipulation
- Difficulty with orgasm
- **Vaginal dryness and pain**

■ Andersen BL, Curr Opin Obstet Gynecol, 1995

■ Ganz P, et al. J Clin Oncol, 1998

# ETIOLOGY OF FSD: PSYCHOLOGICAL IMPACT

- Depression
- Anxiety
- Stress
- Difficulty in relationship



# HORMONAL THERAPY: AROMATASE INHIBITORS

- **Side Effects:**
  - **Atrophic vaginitis:**
    - frequent urinary tract infections
    - vaginal dryness
    - vaginal burning
    - decreased lubrication during sexual arousal
    - pain with vaginal penetration
  - **Menopausal symptoms:**
    - Hot flushes, night sweats, insomnia, irritability
  - **Diminished libido**
  - **Joint Pain**

# TAMOXIFEN: SIDE EFFECTS

## Women:

- **Vaginal discharge**
- Fatigue
- Leg cramps
- Menopausal symptoms: **Hot Flashes**
- Vaginal Dryness
- Irregular menstrual cycles
- Headache
- Cataracts

**Men:** headaches, nausea, skin rash, impotence, decreased sexual interest

# CHEMOTHERAPY

- Hair loss
- Weight changes
- Nausea, vomiting
- Nerve damage
- Premature menopause
- Infertility
- Fatigue

# RADIATION THERAPY

## Breast:

### Acute:

- Skin irritation, blistering
- Breast or chest wall tenderness
- Fatigue

### Chronic:

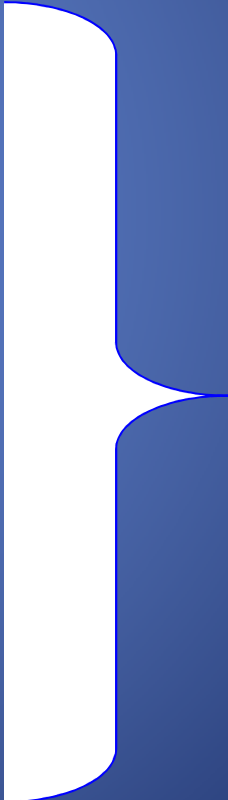
- Range of motion difficulties
- Skin changes
- Lymphedema
- Tattoo

# SURGERY

- Body Image Changes
  - Mastectomy + reconstruction: worst impact on sex life compared to mastectomy alone or reconstruction (Rowland et al, JNCI, 2000)
- Loss of femininity
- Nerve Damage
- Impact on relationships
- Postoperative pain
- Numbness, tingling

# MEDICATIONS

- Anti-anxiety medications
- Pain medications
- Neuromodulators
- Anti-nausea
- Antidepressants
- Sleeping aids



All of these  
medications  
can alter  
sexual  
response

# SURVIVORSHIP MEDICINE

## NCI:

- Physical, psychological, and economic issues of cancer survivors
- Extends until end of life
- Issues:
  - Access to health care
  - Follow-up treatment
  - **Late effects of treatment**
  - **Quality of Life**

# TREATMENT

# SPECIFIC CONCERNS

- Breast Cancer:
  - Increasing use of aromatase inhibitors for adjuvant therapy
  - Dual therapy: AI's/Tamoxifen
  - Side Effects from profound estrogen suppression
  - Is vaginal estradiol contraindicated?

# VAGINAL ESTROGEN AND BREAST CANCER

Kendall A et al, *Ann Oncol*, 2006:

- 7 postmenopausal women on AI w/atrophic vaginitis
  - vagifem, premarin
- Conclusion: Vaginal estrogen increases serum estradiol greater than 5 pmol/L → reversal of estrogen suppression achieved with aromatase inhibitors

# VAGINAL TESTOSTERONE THERAPY: VAGINAL ATROPHY

- Witherby et al. Topical testosterone for breast cancer patients with vaginal atrophy related to aromatase inhibitors: a phase I/II study. *Oncologist*, 2011:
  - 4 week course of vaginal testosterone
  - Improved symptoms of vaginal atrophy without increasing estradiol or testosterone levels
  - Longer trials needed

# TESTOSTERONE THERAPY: LOW LIBIDO

- Thus far, no studies have had sufficient duration or enough participants to determine whether testosterone therapy increases breast cancer risk
- No association between testosterone and endometrial cancer, or other malignancies

# WELLBUTRIN SR: LOW LIBIDO

Norepinephrine/Dopamine Reuptake Inhibitor

- Clayton et al: 300mg daily for adjunctive antidepressant therapy: **increased desire**
- Segraves et al: premenopausal HSDD: **increased arousal, orgasm, sexual satisfaction**

# VIAGRA AS ANTIDOTE TO ANTIDEPRESSANT-INDUCED ORGASMIC DISORDER

- Nurnberg et al. *JAMA*, 2008:
  - N=98
  - Premenopausal: 18-50
  - MDD treated with SRI
  - 50-100mg dose
  - Increased ability to reach orgasm compared to placebo
  - SE: headache, flushing, dyspepsia

# TREATMENT OF MENOPAUSAL SYMPTOMS

When hormones contraindicated:

- Effexor XR 37.5mg daily
  - SNRI
  - SE: Headaches, fatigue, dizziness, nausea
- Neurontin 300mg three times a day
  - SE: fatigue, dizziness

# LUBRICANTS AND MOISTURIZERS

# NON-HORMONAL VAGINAL MOISTURIZERS

- Non-prescription
- Replenishes water content to vagina
- Longer duration of effect than personal lubricants
- Often used for symptoms such as vaginal dryness, itching

# VAGINAL MOISTURIZERS: ESTROGEN ALTERNATIVE

## ■ Replens®

- Rehydrates vaginal tissue, improves vaginal elasticity

(Nachtigall L.Fertil Steril. 1994; 61(1):178-80)

- Apply 3 times a week
- 2 months of use for full benefit
- Vaginal discharge

## ■ Others: K-Y: Liquibeads, Silk-E, Long Lasting; Very Private Intimate Moisture



# PERSONAL LUBRICANTS

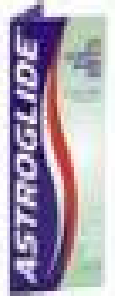
- Provides temporary lubrication
- Reduces friction during vaginal penetration

Types:

- water-based
- silicone-based
- Oils



# WATER-BASED LUBRICANTS



- Most widely available
- Safe to use with latex condoms, sex toys
- Tend to dry up quickly
  - Reactivate with water
- Do not stain
- Rarely cause irritation
- Ingredients: deionized water, glycerin, propylene glycol
- Available in glycerin-free options
- Glycerin may promote vaginal inflammation and yeast infection
- K-Y, Astroglide, Liquid Silk



# SILICONE-BASED LUBRICANTS



- Longer lasting than water-based lubricants
- Can be used in water
- Safe to use with latex condoms, diaphragms, non-silicone toys
- Available in glycerin-free options
- Can be used as a massage oil
- More expensive than water-based lubricants
- Harder to wash off sheets and clothing
- KY intrigue, **Pjur Eros Body Glide**, Wet Platinum, Sliquid Silver, Pink Silicone Lubricant for Women, Astroglide X

# OIL-BASED LUBRICANTS

## Petroleum-based:

- Petroleum jelly, mineral oil, baby oil
- May promote vaginal inflammation/irritation
- Not for use with latex condoms
  - Can reduce both the effectiveness of latex items and prevention of STDs

## Natural Oils:

- Avocado, corn, olive, peanut
- Non-irritating
- Should not be used with latex items

# ORGANIC LUBRICANT

## ■ Good Clean Love Almost Naked Personal Lubricant

- 95% organic ingredients:
- No propylene glycol, parabens, petrochemicals
- Edible
- Safe for use with latex condoms

# NUTRACEUTICALS

# ARGINMAX



- Proprietary blend of:
  - L-arginine
  - Damiana
  - Ginseng
  - Ginkgo-biloba
  - Calcium
  - Iron
  - Vitamins
- 3-6 tabs daily
- Effect typically seen after 4-6 weeks use
- No estrogenic activity

**RCT**  
**N = 108, age 22-73**  
**4 weeks**  
**FSFI**

# ArginMax

```
graph TD; A[ArginMax] --- B[Premenopausal]; A --- C[Perimenopausal]; A --- D[Postmenopausal]; B --- B1[• Desire]; B --- B2[• Satisfaction]; B --- B3[• Intercourse frequency]; C --- C1[• Satisfaction]; C --- C2[• Intercourse Frequency]; C --- C3[• Decreased dryness]; D --- D1[• Desire];
```

## Premenopausal

- Desire
- Satisfaction
- Intercourse frequency

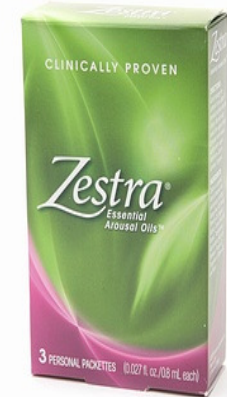
## Perimenopausal

- Satisfaction
- Intercourse Frequency
- Decreased dryness

## Postmenopausal

- Desire

# ZESTRA



## ■ Topical feminine arousal oil:

- Evening primrose oil
- Borage seed oil

■ Gamma linolenic acid → increased blood flow and nerve conduction velocity

- Angelica root extract, coleus, vitamin C, vitamin E

# ZESTRA

- Pilot study:
  - Increase in desire, genital arousal, orgasm, and sexual satisfaction

Ferguson et al. J Sex Marit Ther, 2003; 29:33–44

- Multicenter trial:
  - 14.6% incidence of mild to moderate burning in Zestra<sup>®</sup> group
  - Zestra<sup>®</sup> group: significant increase in desire, arousal

Ferguson et al. J Sex Marit Ther, 2010;36(1):66-86

# ZESTRA

- Should be avoided:
  - Hypersensitivity to any of the ingredients
  - Atrophic vaginitis
  - Active vulvovaginal infection
  - Pregnancy, breastfeeding
- Use with polyurethane condoms only
- Do not engage in oral sex once Zestra is applied

# EROS-CTD



- Clitoral vacuum
- Small, battery-powered device
- Increases clitoral blood flow and clitoral engorgement
  - Plays a role in sexual arousal and overall sexual satisfaction
- Expensive, requires prescription

# EROS THERAPY: RESEARCH

- Billups et al. The J of Sex Marit Therm 2001:
  - Increased orgasm frequency in postmenopausal compared to premenopausal women
- Increased:
  - sensation
  - lubrication
  - ability to achieve orgasm
  - sexual satisfaction
- No negative side effects

# PAINFUL INTERCOURSE FOLLOWING CANCER TREATMENT

Sexual pain often due to vaginal narrowing from estrogen loss &/or radiation therapy, surgery:

- Vaginal Dilator Therapy

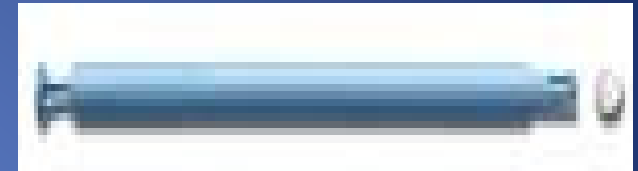
- 15-30 min/day with lubricant

- +/- vaginal estrogen therapy or a vaginal moisturizer

- Pelvic Floor Physical Therapy/ Sexual Therapy/Psychotherapy



# VAGINAL ESTROGEN TABLET



Vagifem<sup>®</sup> (17beta-estradiol)

- 10mcg tablet
  - Inserted daily for 2 weeks initially, then 2 times per week thereafter
  - Lower 1/3 of vagina
  - Significant improvement in atrophic vaginitis symptoms (Bachmann et al, *Obstet Gynecol*, 2008)

# VAGINAL ESTROGEN RING

- Silastic ring containing 17 beta-estradiol
- Releases 7.5 micrograms/24hrs
- Worn for 3 months at a time
- Does not need to be removed during intercourse



# TREATMENT: LYMPHEDEMA AND FEMALE SEXUAL DYSFUNCTION

- Discomfort with certain sexual positions:
  - Experimentation with alternate positioning
  - Physical therapy for range of motion
- Body Image:
  - Counseling
  - Arm sleeve

# TREATMENT FOR FATIGUE IMPROVES SEXUAL FUNCTION

- Treat anemia

- Exercise

  - Increased energy

  - Improved well-being

  - Enhanced mood

    - Dimeo F et al, *Cancer*, 1999

    - Mutrie N et al, *BMJ*, 2007

# INTIMATE RIDER

- Increases sexual mobility
- Natural swaying motion during sex
- Useful for: Back pain, limited range of motion, fatigue



# SEX AFTER A CANCER DIAGNOSIS/TREATMENT

- Become comfortable with body changes following:
  - Surgery, Radiation Therapy
- Use of lingerie
- Self-exploration
- Treat partner sexual dysfunction
- Therapy for any relationship difficulties
- Pain medications

# SEX AFTER A CANCER DIAGNOSIS

To diminish fear and anxiety:

- Choose a time when symptoms are well-controlled
- Liberal use of vaginal lubricants/moisturizers
- Resume activity on a step-wise basis:
  - Hugging
  - Kissing
  - Touching
  - Intercourse
- Goal: intimacy

# SENSATE FOCUS

- Mainstay of sex therapy
- Goal: overcome anxiety, increase intimacy
- Twice a week
- Phase 1: Create a relaxing environment. Couple takes turns touching each other, avoiding breasts and genitals. If anxiety a problem, start with massage/holding hands
- Phase 2: Touching of genitals and breasts, focusing on verbal and non-verbal (“hand-riding”) communication of what feels good. Avoidance of intercourse and orgasm
- Phase 3: Mutual touching. Intercourse is still avoided
- Phase 4: Mutual touching continues; intercourse, if ready

# BEHAVIORAL THERAPY: INTERVENTIONS

## ■ Individual:

- Stress reduction
- Exercise
- Diet
- Increased sleep
- Creativity: use of lingerie, movies, sexual positioning

## ■ Couples:

- Date nights
- Child care
- Scheduling time for intimacy when fatigue not an issue
- Privacy: place locks on door
- Removing TV from bedroom
- Sensate Focus
- Joint activities
- Avoid letting kids sleep in bedroom

# SEX THERAPY

- Take a detailed history
- Construct a problem list
- Formulate a set of goals and interventions
- Focus of therapy is almost always on a sexuality issue
- Treat depression or stabilize the relationship, before the sexual concerns can be addressed

# DATING AFTER A CANCER DIAGNOSIS

- Ease into the dating scene:
  - Become comfortable in other social situations first (gym, classes, etc)
  - Practice telling friends, strangers about your diagnosis
- Decide when it is the right time to disclose your diagnosis to a date
  - Practice on friends, be honest about upcoming treatments, surgeries
- Don't wait until after the relationship has become sexually intimate

# YOUNG WOMEN AND BREAST CANCER

- Greater severity of emotional distress compared to older women
- Infertility
- Breast conservation vs. mastectomy: improved body image
- Dating and the single woman after a breast cancer diagnosis

# SURVIVOR NETWORK: YOUNG WOMEN W/ BREAST CANCER

- YSC: Young Survival Coalition:
  - [www.youngsurvival.org](http://www.youngsurvival.org)

# DATING AFTER A CANCER DIAGNOSIS

Useful websites:

- [CancerMatch.com](http://CancerMatch.com): Cancer survivor networking site
- [Prescription4Love.com](http://Prescription4Love.com): a dating and friendship site geared toward people with special health conditions

# CLINICAL PEARLS

- Pre-treatment assessment for sexual dysfunction and counseling
- Body image counseling after treatment
- Early treatment of vaginal symptoms in both younger and older women
- Fertility discussion before treatment

# USEFUL WEBSITES

- [www.makemeheal.com](http://www.makemeheal.com)
  - Prosthetics
  - Arm sleeves
  - Clothing
  - Bras
- [www.lookgoodfeelbetter.org](http://www.lookgoodfeelbetter.org)
  - helps women offset appearance-related changes from cancer treatment

# USEFUL WEBSITES

- [www.drugstore.com](http://www.drugstore.com)
  - Lubricants/Moisturizers
  - Nutraceuticals
  
- [www.aasect.org](http://www.aasect.org)
  - Certified sex therapist
  
- [www.apta.org](http://www.apta.org)
  - Physical therapist

**THANK YOU**