

# MANAGING THE SIDE EFFECTS OF HORMONAL THERAPY

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# Objectives

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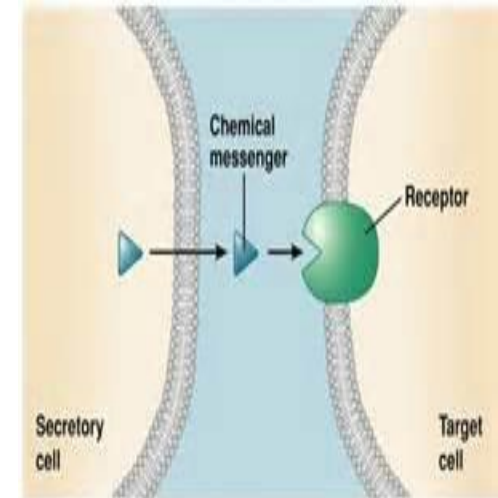
- To review the role and the various types of hormonal therapies in breast cancer
- To understand the possible side effects of the varied therapies
- To discuss ways to manage these side effects including lifestyle modification
- Question and answer period

# Hormonal Therapy

What is it and what does it do?

# What are hormones?

- Chemical messengers that send signals from one cell to another via the bloodstream
- They affect cells and tissues that carry the receptor for that specific hormone
- Hormones bind to the receptor protein leading to cell-specific reactions
- In breast cancer, estrogen and progesterone (released by the ovaries) can play a part in tumor growth



(b) Communication via chemical messengers

# What is hormonal therapy for breast cancer?

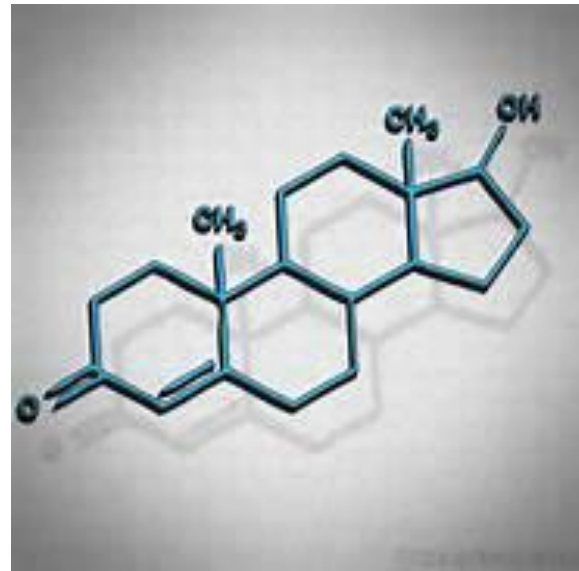
- Not the same as HRT (hormone replacement therapy)
- Reduces hormones in the body or interferes with the hormonal action
- Can stop or slow the growth of tumors
- Can decrease the risk of the cancer coming back
- Can prevent new breast cancers from forming
- Can improve disease free survival

# Who gets hormonal therapy?

- Patients with estrogen receptor (ER) positive and/or progesterone receptor (PR) positive breast cancers
- Approximately 70-80% of breast cancers are ER+
- Can be given as:
  - adjuvant therapy (treatment that is given after surgery, chemotherapy or radiation)
  - neoadjuvant treatment (before surgery)
  - treatment for metastatic disease

# What are the various types of hormonal therapies?

- Block estrogen effects
- Block estrogen production
- Block ovarian function
- Other types



# Block estrogen effects

- Selective Estrogen Receptor Modulators (SERMs) - bind to estrogen receptors thus preventing estrogen from binding (estrogen antagonist) but can mimic estrogen effects (estrogen agonist)
  - Tamoxifen/Nolvadex (risk reduction, adjuvant, metastatic)
  - Raloxifene/Evista (risk reduction)
  - Toremifene/Fareston (only in metastatic setting)
- Estrogen receptor downregulator - pure antiestrogen with no agonist effect
  - Faslodex/Fulvestrant (postmenopausal with metastatic disease)



# Side effects

- ❑ Fatigue
- ❑ Hot flashes/night sweats
- ❑ Vaginal discharge
- ❑ Mood swings
- ❑ Blood clots
- ❑ Stroke
- ❑ Endometrial cancer



# Block estrogen production

- Aromatase inhibitors (AI) – block activity of aromatase enzyme which turns androgen into estrogen
- Only in postmenopausal setting or in premenopausal women whose ovarian function is suppressed because it cannot stop the ovaries from making estrogen
  - Anastrozole/Arimidex – temp inactivate aromatase
  - Letrozole/Femara – temp inactivate aromatase
  - Exemestane/Aromasin – permanently inactivate aromatase



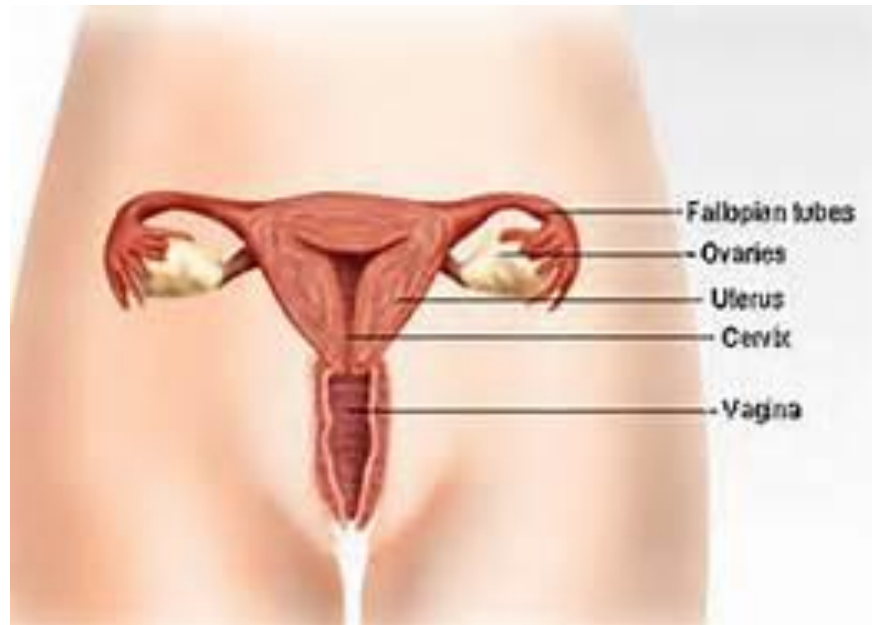
# Side effects

- ❑ Bone and joint pain or stiffness
- ❑ Bone loss (osteopenia or osteoporosis)
- ❑ Hot flashes
- ❑ Fatigue
- ❑ Weakness



# Block ovarian function

- Ovarian ablation
  - ▣ Surgery
  - ▣ Lupron
  - ▣ Zoladex



# Other types of hormonal therapy

- Megace (progesterone-like drug for metastatic breast cancer)
- Androgens (male hormones for metastatic breast cancer)
- High dose estrogen (metastatic breast cancer)



# Side Effects

Can we control them?

# What is a side effect?

- Undesirable outcome
- Effect of a therapeutic treatment
- Can occur at the beginning, middle or after the end of treatment



# Who Gets Side Effects?

- Anyone can
- Not everyone has same side effects or suffers them the same
- You may not suffer from all the side effects you hear about
- Some side effects are unique to an individual
- Make use of the recommended treatments





# Treatment and Side Effects

- What to do
  - ▣ Speak to your care provider
  - ▣ No question is bothersome or stupid
  - ▣ Use your resources at home, family, neighbors, communities
  - ▣ Speak to other survivors and look for other resources



# Treatment and Side Effects

- What to avoid
  - ▣ Isolating yourself
  - ▣ Suffering with or hiding your symptoms
  - ▣ Talking to negative people
  - ▣ Listening to myths in the community; get the facts before stressing yourself out



# Managing the Side Effects

The more common side effects and tips on how to manage them

# Hot Flashes

- ❑ Intense, sudden feeling of heat on your face and/or body
- ❑ Can be accompanied by rapid heart rate, sweats, nausea, dizziness, headache, anxiety or weakness
- ❑ Can vary in time of duration, frequency and intensity
- ❑ Most common 6-8 AM and 6-10 PM
- ❑ 10-15% of women have severe episodes



# What causes hot flashes

- Hormonal changes (drop in estrogen) as during menopause
  - 85% of women in US who are perimenopausal and 1-2 years after they stop
  - 20-50% continue to have these for many years
- Lifestyle and dietary choices
- Medications such as hormonal therapy
  - Occur in 50-75% of women taking Tamoxifen and usually improve after 1<sup>st</sup> 3-6 months of therapy

# Avoid Triggers

- Try to identify what makes them worse
- Common triggers
  - Alcohol
  - Caffeine
  - Spicy or hot foods or drinks
  - Hot tubs, saunas, hot showers
  - Hot rooms or beds
  - Weather
  - Smoking



# Other Tips

- ❑ Dress in layers – cotton best
- ❑ Avoid wool, synthetics, silk, turtlenecks
- ❑ Drink plenty of fluids and keep ice water at hand
- ❑ If possible, keep your room environment cool
- ❑ Use cool cloth behind your neck
- ❑ Keep a fan at hand
- ❑ Take cool showers before bedtime
- ❑ Use cotton PJs and sheets



*Real women don't  
have hot flashes  
they have  
**POWER  
SURGES***

# Lifestyle Changes

- Start an exercise program which can help combat fatigue and improve general well-being
- Try relaxation techniques for stress reduction (relaxation and breathing exercises, meditation, guided imagery, massage, yoga)
- Change your diet – losing weight and a low fat diet may help (being thin leads to worse symptoms)
- Consider acupuncture
- Vitamin E (800 IU daily) helps some women



# If all fails - medical treatment

- Blood pressure medication can decrease severity and frequency
  - ▣ Clonidine 0.1 mg patch weekly or Aldomet 250 mg bid
- Antidepressants can reduce hot flashes
  - ▣ Effexor 12.5 mg bid can decrease them by about 50% in 60% of women (usually 75 mg daily); 80% decrease within 1<sup>st</sup> week
  - ▣ Paxil 10 mg daily in 1<sup>st</sup> week, then 20 mg daily
- Avoid SSRIs if taking tamoxifen (prozac, paxil, zoloft, celexa, lexapro) as can interfere with changing tamoxifen to its active form

# Other medical treatments

- Megace - progesterone like product
  - ▣ Improvement in 80% of women who take it
  - ▣ 40 mg daily, can increase to 80 mg
  - ▣ Takes a few weeks to work
- HRT
  - ▣ Not recommended for breast cancer survivors
  - ▣ Not recommended for women who tested positive for BRCA1 or 2 gene mutations



# Bone, joint and muscle pain

- Mild to severe pain and aches in the bones and joints that can be worse in the morning
- Can include stiffness
- Common with hormonal therapy and present in about half of patients taking AIs
- Can be worse in patients with known history of arthritis
- Can be debilitating in some patients

# Tips to manage

- ❑ Exercise
- ❑ Eat a healthy diet and maintain a healthy weight
- ❑ Use hot or cold packs to reduce muscle spasms and inflammation
- ❑ Try Tylenol or ibuprofen
- ❑ Try glucosamine with chondroitin supplement



# If affecting quality of life

- Talk to your doctor about switching hormonal therapy
- Consider testing for other sources of pain



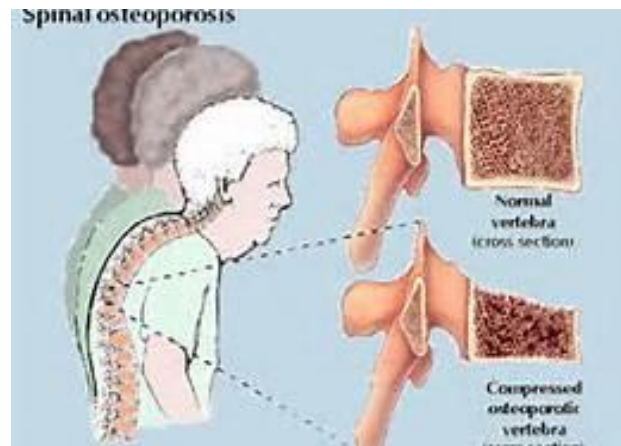
# Other things to consider

- Acupuncture
- Massage
- Yoga
- Reiki
- Shiatsu
- Music therapy



# Osteopenia and Osteoporosis

- Bone thinning or loss
- Increases risk of fractures
- Als can worsen
- Other worsening factors can include menopause, being small and thin, family history



# How to manage

- Obtain baseline bone density scan and then every two years
- Take calcium (1 000 mg) – helps maintain bone health and strength
- Take Vitamin D (800 IU) – helps body absorb and retain calcium
- Weight bearing exercise
- Eat healthy/maintain healthy weight – underweight more prone to bone loss and fracture
- Biphosphonates slow bone loss and may help promote new bone growth
- Prevent falls



# Vaginal Dryness

- ❑ Decreased estrogen leads to thinning of vaginal membrane, lack of elasticity and decrease in lubrication production
- ❑ Can lead to painful sexual intercourse
- ❑ Yeast infections and bacterial vaginosis common
- ❑ UTIs can also occur more frequently
- ❑ Occurs in about 10% of women



# Tips for Management

- Try water-based lubricants (AstroGlide, KY, Moist Again, Femglide, Durex, Wet, generics)
- Try moisturizer (Replens)
- Avoid irritating products including douches
- Talk to your doctor about vaginal estrogen products if all else fails (Estring, Vagifem)
- Treat yeast infections



# Painful Intercourse

- What to do if painful intercourse
  - ▣ Lubricants
  - ▣ Change positions
  - ▣ Set the mood
  - ▣ Communicate with your partner



# Vaginal Discharge

- Abnormal discharge which can be an increase in volume, thickened and white or yellow in color
- More common with Tamoxifen or Fareston
- Occurs in about 10% of women



# How to manage

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- Use gentle soap and warm water to wash
- Stay away from irritants such as douches, vaginal sprays and deodorants
- Wipe from front to back
- Wear cotton underwear
- Use non-scented panty liners

# Insomnia

- Frequent problems going to sleep or staying asleep
- More common with the AIs and Faslodex
- Hot flashes can worsen this side effect
- Can also be worsened by stress



# Tips for management

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- Try to go to bed and wake up at the same time each day
- Associate bed only with sleep
- Go to bed only when sleepy
- Keep your bedroom dark and quiet
- Try chamomile tea, warm bath, warm glass of milk
- Consider relaxation therapy, meditation, prayer or massage
- Try earplugs

# What to avoid

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- ❑ Long naps and/or naps during the day
- ❑ Exercise 2-3 hours before sleep
- ❑ Caffeine products before bedtime
- ❑ Drinking lots of fluid before bedtime
- ❑ Alcohol before bedtime
- ❑ Thinking about what you need to accomplish when you lay awake
- ❑ Staring at the clock
- ❑ Smoking before bedtime



# Fatigue

- Most common side effect experienced by cancer patients
- Overwhelming sensation of tiredness
- Not improved by sleeping or resting
- More common with the AIs and tamoxifen



# Fatigue

- What to do
  - ▣ Use your resources!!!
  - ▣ Keep a journal
  - ▣ Balance rest and activities
  - ▣ Exercise
  - ▣ Eat a balanced diet
  - ▣ Drink plenty of fluids
  - ▣ Reduce stressors



# Final Words

- Cancer and its treatment is unique to each individual
- Hormonal therapy is an important part of therapy for some women
- The side effects of hormonal therapy can be managed
- Modify the things you can in your daily life
- Establish great communication with your health care providers and loved ones
- You are not alone – know your resources

Take care of wonderful you!

