Breast Cancer 101

This presentation provides a basic overview and does not substitute for medical advice. We hope it stimulates further questions and discussion.
Breast Cancer: What Is It?

- Many diseases
- Common element: cells growing out of control in the breast
Is breast cancer always deadly?

- Breast cancer in the breast cannot kill
- Metastasis to other organs does
  - Primary sites: liver, bone, brain, lung
  - It’s still breast cancer
Kinds of breast cancer

- Invasive
- Inflammatory
- Paget’s disease
- In situ
Invasive Breast Cancer

Capable of spreading beyond the breast

- Where did it start?
  - ductal (75%)
  - lobular

- What do cells look like?
  - affects prognosis
  - medullary, mucinous, tubular, papillary
Other Kinds of Breast Cancer

- Inflammatory (1%)
- Paget’s Disease (3%)
- In situ
  - Ductal (2.5%)
  - Lobular (2.5%)
  - Cancer or pre-cancer?
  - Not life-threatening at diagnosis
Diagnosis

Diagnosis: cells under a microscope
- Fine needle aspiration
- Biopsy
  - core needle
  - excision
- Axillary lymph node dissection
  - sentinel node biopsy
Staging: An imprecise tool

- Has or will the cancer spread?
  - Tumor size
  - Number of lymph nodes
  - Metastasis beyond the breast

- Stage 1 is earliest, Stage 4 is latest
  - Combination of TNM
Moving toward better classification

- Hormone status: ER/PR
  - Luminal A and B cell types mostly positive
- Her2/neu: test matters (FISH)
  - Over-expression = aggressive disease
  - Herceptin option
- Basal cell type
  - Aggressive disease – ER/PR neg and Her2 normal – chemo is only current option
Treatments

- Local control: surgery
  - Lumpectomy
  - Mastectomy

- Local control: radiation

- Systemic treatment
  - Chemotherapy: fast growing cells
  - Hormonal therapies: targeting estrogen
Treatments: New Horizons

- Biologics: more targeted therapies
  - E.g., Herceptin, Lapatanib
  - Cost, approval standards, who should get them
- New hormonal treatments: aromotase inhibitors
- Only clinical trials can determine effectiveness
  - Off-label uses
Surviving Breast Cancer

- Diagnosis on screening mammogram: 96% alive 5 years later
- Invasive breast cancer can recur at any time
- Survival depends on
  - Stage at diagnosis
  - Aggressiveness of disease
  - Treatment
  - Luck
For More Information

- Breast Cancer Action: www.bcaction.org

- The National Cancer Institute’s Cancer Information Service (CIS): http://www.nci.nih.gov/

- Dr. Susan Love Research Foundation: http://www.dlsrff.org/breastcancer/

- Oncolink: http://www.oncolink.org