lobular carcinoma in situ

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Benign lesions of the breast

1. nonproliferative
2. proliferative without atypia
3. proliferative with atypia
   - atypical ductal hyperplasia (ADH)
   - atypical lobular hyperplasia (ALH)
   - lobular carcinoma in situ (LCIS)

- they are generally managed as risk indicators rather than precursor lesions

LOBULAR CARCINOMA IN SITU

- there are no specific mammographic findings associated with LCIS
- The mean age at diagnosis is between 44 and 46 years of age, and 80 to 90 percent of cases occur in premenopausal women

Histology

- classic
- Non classic forms
    - Pleomorphic LCIS
    - Florid LCIS

Pleomorphic LCIS

- central necrosis
- calcifications
- can be associated with an infiltrating pleomorphic lobular carcinoma

Florid LCIS

- Florid LCIS may present as an image-detected mass or as microcalcifications.

Future breast cancer risk and its reduction

- The relative risk of developing an invasive cancer in women with LCIS is approximately 7- to 11-fold higher than for women without LCIS
- The absolute risk is
  - approximately 1 percent per year and appears to be lifelong.

endocrine therapy for breast cancer prevention

- Age of 35 years or older
  - A history of thoracic radiation administered prior to 30 years of age.
  - A history of lobular carcinoma in situ.
  - Atypical hyperplasia.
  - A ≥1.7 percent five-year risk for breast cancer
- For those with BRCA1, BRCA2 mutations, limited retrospective data suggest a benefit with tamoxifen

POSTMENOPAUSAL WOMEN

- administered for a total of five years
- Both SERMs and AIs appear to be reasonable options, although there are no Ais approved by the US Food and Drug Administration

POSTMENOPAUSAL WOMEN

- With normal bone mineral density
  - AI may be recommended compared with a SERM.
    - SERM: thromboembolism, cataracts, and uterine cancer
    - AI: arthralgias,osteoporosis
- with baseline osteopenia/osteoporosis
  - we suggest a SERM rather than an AI.
- both anastrozole and exemestane appear to be comparably effective.

SERMs

- Raloxifene appears to be a less potent SERM than tamoxifen, with a smaller reduction in new cancers, but the risk of endometrial cancer and thrombosis are also less with raloxifene
- tamoxifen blocks the effects of endogenous estrogen. By contrast, it produces estrogen-like effects in the uterus, bone, liver, and coagulation system

tamoxifen

- Although we continue to suggest the 20 mg daily dose given more data and longer follow-up, 5 mg daily is a reasonable alternative for those who are not tolerating the higher dose despite measures to manage side effects, and would otherwise discontinue treatment

postmenopausal

- Raloxifene
  - estrogenic effects on bone and lipids,
  - estrogen antagonist effects on the breast and uterus
  - Dose: 60 mg daily

Tamoxifen versus raloxifene

- Tamoxifen was slightly more effective at preventing invasive breast cancer
- the risk of thromboembolic events was greater with tamoxifen
- tamoxifen resulted in greater risks of cataracts and endometrial cancer

Aromatase inhibitors

- Of the AIs, only anastrozole and exemestane have been evaluated for primary prevention,
- Although AIs have not been directly compared with SERMs for breast cancer chemoprevention AIs are slightly superior to tamoxifen.

- they may be associated with a loss of bone density. It is therefore important to obtain a baseline bone density and evaluate fracture risk prior to starting an AI, as well as routinely during treatment

PREMENOPAUSAL WOMEN

- Tamoxifen
  - we suggest tamoxifen for five years AIs are
  - contraindicated in women with intact ovarian function.
  - There are no data on the efficacy of raloxifene