Tamoxifen has an established role as adjuvant systemic therapy for premenopausal women with estrogen receptor-positive breast cancer. A number of major current clinical trials are evaluating the role of ovarian ablation/suppression combined with either tamoxifen or an aromatase inhibitor. A related and important issue is the impact of chemotherapy-related ovarian suppression in these patients. While it will be many years before data on disease-free and overall survival are available from these studies, an Austrian study reported by Gnant at the San Antonio Breast Cancer Symposium in 2002 and 2004 demonstrated that bone loss associated with ovarian suppression combined with either tamoxifen or anastrozole can largely be avoided by the use of the bisphosphonate zoledronate.

Ovarian Suppression in the Treatment of Premenopausal Women

The ABCSG (Austrian Breast and Colorectal Cancer Study Group) is undertaking a series of three nested trials: SOFT, PERCHE and TEXT. These trials address what is probably the most important unmet medical need in premenopausal breast cancer right now: Beyond tamoxifen, does planned ovarian suppression benefit patients?

In particular, does it benefit women who receive chemotherapy or who don’t receive chemotherapy, and if a woman experiences chemotherapy-related amenorrhea, does she still need ovarian suppression? We probably won’t have the data for at least five or 10 years, but there are very important trials in which community oncologists can participate to answer these critical questions.

Currently, I consider ovarian suppression for two groups of patients: the first group consists of patients at high risk — multiple positive nodes, high-risk tumors — and women less than 35 or 40 years of age who may not be able to menstruate with chemotherapy. The other group includes women who are at the opposite end of the spectrum — low-risk tumors, smaller tumors, node-negative — for whom the benefits of chemotherapy are small. For these women, I present ovarian suppression as an option, not necessarily in addition to chemotherapy but perhaps even instead of it.

Michael Gnant, MD

Copyright © 2008 Breast Cancer Update. All rights reserved. Further distribution is allowed for educational purposes only. Please see web for providing information and protocols.

Adjuvant Endocrine Therapy in Premenopausal Patients

Tamoxifen has an established role as adjuvant systemic therapy for premenopausal women with estrogen receptor-positive breast cancer. A number of major current clinical trials are evaluating the role of ovarian ablation/suppression combined with either tamoxifen or an aromatase inhibitor. A related and important issue is the impact of chemotherapy-related ovarian suppression in these patients. While it will be many years before data on disease-free and overall survival are available from these studies, an Austrian study reported by Gnant at the San Antonio Breast Cancer Symposium in 2002 and 2004 demonstrated that bone loss associated with ovarian suppression combined with either tamoxifen or anastrozole can largely be avoided by the use of the bisphosphonate zoledronate.

**RANDOMIZED ADJUVANT TRIAL OF TAMOXIFEN AND Goserelin Versus Cyclophosphamide, Methotrexate and Fluorouracil in Premenopausal Patients**


**SOT’S SUPPRESSION OF OVARIAN FUNCTION TRIAL**

- **Eligibility**
  - Premenopausal women with hormone receptor-positive disease
  - Target Accrual: 3,000 (Open)
  - Arm 1: OFS + T or E × 5y + any chemotherapy
  - Arm 2: OFS + tamoxifen × 5y
  - Arm 3: OFS + T or E × 5y + chemotherapy
  - Arm 4: OFS + tamoxifen × 5y

**ABCSG-05 TRIAL RESULTS: FIVE-YEAR FOLLOW-UP**

**Eligibility**
- Premenopausal women with hormone receptor-positive disease
- Target Accrual: 1,750 (Open)


**TEXT TAMOXIFEN AND EXEMESTANE TRIAL**

**Eligibility**
- All trials stop for first 5-year relapse, continuation to lifelong adjuvant therapy on the first event
- Target Accrual: 1,750 (Open)

**PERCHE: PREMENOPAUSAL ENDOCRINE RESPONSE CHEMOTHERAPY TRIAL**

- **Eligibility**
  - Premenopausal women with ER and/or PR-positive disease
  - Target Accrual: 3,000 (Open)

- **Arm 1**
  - OFS + T or E × 5y + any chemotherapy
  - Arm 2**
  - OFS + tamoxifen × 5y


**PHASE II STUDY COMPARING AN LH-RH AGONIST WITH TAMOXIFEN OR ANASTROZOLE OR WITH OR WITHOUT ZOLEDRONIC ACID**

**Eligibility**
- Premenopausal patients with hormone receptor-positive disease
- Target Accrual: 1,845 (Open)

**SOURCE:** Jakesz R et al. Cancer 2003;21(9):1836-44.

**PERCIE: PREMENOPAUSAL ENDOCRINE RESPONSIVE CHEMOTHERAPY TRIAL**

- **Eligibility**
  - Premenopausal women with ER and/or PR-positive disease
  - Target Accrual: 3,000 (Open)
  - Arm 1: OFS + T or E × 5y
  - Arm 2: OFS + goserelin × 5y
  - Arm 3: OFS + tamoxifen × 5y
  - Arm 4: OFS + goserelin + tamoxifen × 5y


**SELECT PUBLICATIONS**