Managing Adolescent Breast Masses

BY MARY ELLEN SCHNEIDER  Senior Writer

NEW YORK — When evaluating a breast mass in an adolescent, keep in mind that breast cancer is rare in this population and imaging should be limited, Dr. Patricia Simmons advised physicians at a gynecology conference sponsored by Mount Sinai School of Medicine.

Studies of the histopathology of young patients who had surgery for a breast mass show that the most consistent finding is fibroadenoma, though some had fibrocystic changes, abscess, and infection, and in very rare cases, malignant disease, said Dr. Simmons, professor of pediatrics at the Mayo Clinic in Rochester, Minn.

In the rare case of a malignant mass, it is likely to be the type of tumor found more commonly in young patients, such as primary or metastatic rhabdomyosarcoma, metastatic neuroblastoma, or lymphoma, she said.

In those cases, patients did not discover the masses through self-examination but generally presented with constitutional symptoms such as fever, night sweats, and weight loss.

The clinical experience in breast masses in adolescents is largely anecdotal, and the surgical experience is limited, Dr. Simmons said. But for the most part, breast masses in adolescent women are benign, cancer is rare, and when cancer occurs, it is generally not carcinoma, she said.

When looking at a breast mass in adolescents, physicians should consider the duration, the constitutional symptoms, and the risk factors for malignancy. Keep in mind that in young women, the risk factors are different, because the patient has lived long enough to develop most of the factors considered in adults, Dr. Simmons said. The risk factors in adolescents are generally cancer history and whether the patient has had chest radiation.

During the physical exam, the mass size and character, breast skin changes, nodes, and organomegaly should be assessed.

In cases in which the diagnosis is uncertain, imaging will be necessary. However, while a mammogram is the go-to test for adults, this type of imaging is ineffective in adolescents because the young breast is denser and firmer, Dr. Simmons said. An ultrasound will be much more sensitive, she said.

Surgery may be indicated in cases such as a recurring cyst that is symptomatic; a growing, disfiguring mass; suspected cystosarcoma phylloides; suspected papilloma; suspected papillomatosis; or an abscess.

When considering surgery for a fibroadenoma, physicians should assess the course, the certainty of the diagnosis, any worrisome features, size and distortion, and tolerance, Dr. Simmons said. In a case in which the mass is distorting the breast, surgery is probably the right choice, because it is interfering with normal life, she said. However, she cautioned physicians not to opt for surgery just because the mass is worrisome to the mother.

“I think we need to arm our patients with the facts, and we should be able to alleviate anxiety if that anxiety is misplaced and not take [the fibroadenoma] out just because it’s there,” she said.

In many cases, it is fine to wait. Fibroadenomas in an adolescent patient since most will be benign and not progressive, Dr. Simmons said. “We should be conservative in the treatment to preserve breast architecture and breast-feeding to the extent we can,” she said.

Sexual Activity by Age in Female Teenagers

Source: 2002 data, Centers for Disease Control and Prevention

Young Black Women at Risk

WASHINGTON — Aggressive breast tumors, known as “triple negatives,” are significantly more common among black women—especially younger women—than in white women, reported Mary Jo B. Lund, Ph.D., at the annual meeting of the American Association for Cancer Research.

Tumors that test negative for three biomarkers—estrogen receptors (ER), progesterone receptors (PR), and human epidermal growth factor receptor 2 (HER2)—are not only more aggressive than other subtypes of breast cancer, but they can’t be treated effectively with tamoxifen or trastuzumab, said Dr. Lund of Emory University in Atlanta.

Dr. Lund and her colleagues evaluated the potential racial differences in the incidence of triple-negative tumors in a group of 117 black women and 362 white women aged 20-54 years. The women had been diagnosed with breast cancer between 1990 and 1992 and were enrolled in a population-based, case-control breast cancer study in the Atlanta area.

The overall incidence of triple-negative tumors was 29.9%, but the tumors were significantly more common among black women, compared with white women (47% vs. 22%).

The incidence of triple-negative tumors decreased with age among white women, but was consistent across age groups among black women. “Essentially, across all age groups, black women were twice as likely to have these triple-negative tumors,” Dr. Lund noted.

Younger black women, aged 20-34 years, appeared to be at particular risk; more than 50% of the tumors in this age group were triple negative. In addition, the percentage of triple-negative tumors increased with increasing severity among both races, but the incidence of grade 3 tumors remained higher among black women, compared with the incidence in white women (81% vs. 60%).

Crucial decisions about breast cancer treatment are based on the presence or status of ER, PR, and HER2 tumors, said Dr. Lund. “Almost 30% of all women and 50% of black women have tumors for which there is no targeted therapy.”

Future research on triple-negative tumors should focus on the risk factors, the reasons for increased risk among black women, and the possible roles of genetics and other biomarkers, she added.