TREATMENT OF BREAST CANCER

Surgery

Surgery is one primary treatment for breast cancer. Two of the more common types of surgery are the modified mastectomy—which removes the breast tissue and some lymph nodes—and the lumpectomy—which involves removing the tumor locally. Radical mastectomy, which removes the muscle underlying the breast in addition to the breast tissue and lymph nodes, is used infrequently now. The long-term survival rates of patients treated with lumpectomy alone or lumpectomy plus radiation therapy are equivalent to those achieved with modified mastectomy.[1, 2]

These operations are usually accompanied by the removal of some regional lymph nodes to determine if the disease has spread beyond the breast. The presence of malignant cells in the lymph nodes as well as other factors will help determine the need for and course of subsequent therapy.

Radiation Therapy

The precision and effectiveness of radiation therapy has improved dramatically over the years. Years ago, when radiation doses were higher and less precise, women with breast cancer who were treated with radiation had significantly increased risks of lung cancer or heart damage. Current radiation therapy, however, involves a much reduced risk and is essential as adjuvant therapy to lumpectomy and may be useful adjuvant therapy to modified mastectomy.[1]

Chemotherapy

A few "cytotoxic" drugs are used in various combinations to treat breast cancer. Research has established that combinations of these drugs are more effective than just one drug alone. After the disease has become resistant to the first-line drugs, about 20% to 30% of patients will respond to second-line drugs.[1]

Taxol and taxotere are also used for the treatment of breast cancer that has recurred or progressed despite treatment. Chemotherapy followed by radiation therapy may result in a higher 5-year relative survival than radiation therapy followed by chemotherapy among women at risk of metastatic disease.[3]

Hormone Therapy

Hormone therapy adds to or interferes with the action of a patient's hormones. Women whose breast cancers test positive for estrogen or progesterone receptors may be given this type of treatment to block the effects of estrogens on the growth of malignant cells in breast tissue. Tamoxifen, progestins, aminoglutethimide, estrogens, and androgens are usually more effective in postmenopausal patients than in premenopausal patients.

Premenopausal women may first receive tamoxifen or have their ovaries removed, and later receive progestins or aminoglutethimide if they have responded to tamoxifen or ovarian surgery.

References:

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3. Recht A, Come SE, Henderson IC, Gelman RS, et al. The sequencing of chemotherapy and radiation therapy after conservative surgery for early-stage breast cancer. *NEJM.* 1996;334:1356-1361.