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The Early Diagnosis of Breast Cancer

EDWARD F. SCANLON, MD*

Changes in the breast begin at the time of puberty because of the cyclical influence of ovarian hormones. This intermittent stimulation usually results in some nodularity of the breast by the time a woman reaches 30 and frequently at an earlier age. The real importance of fibrocystic disease is related to the problem of differential diagnosis of benign from malignant lumps. Mammography has become the standard method for detecting lumps in the early, nonpalpable stage, but refinements in thermography, ultrasound, and CT scanning may become more useful. Considerable work is apparently being done on various chemical markers, but at the present time, they are not sufficiently reliable for routine clinical use. Fine needle aspiration biopsy with cytologic analysis has become more popular as a detection method, and core needle biopsies with histology are sometimes used. Analysis of nipple secretions for chemical markers or for cytologic diagnosis may become more reliable. A combination of factors will probably give the best results, at least in the foreseeable future, and the judgment of an informed and skilled examiner will remain the best method for the detection of early breast cancer for many years to come.

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THE DETECTION OF EARLY BREAST cancer is frequently the responsibility of the gynecologist, since he is the only physician that many women consult regularly. This is especially true of younger women who, because of their greater life expectancy, would benefit more from early detection of cancer. Most breast cancers today are diagnosed as the result of the identification of a palpable lump detected either by the patient or the physician.

The greatest problem in the clinical diagnosis of breast cancer lies in the differentiation of malignant tumors from the benign lumps of fibrocystic disease. Histologic changes in the breast begin with the menarche, and in some cases, by the time the patient has reached the late teens, mild nodularity of fibrocystic disease may be identified. By the time that a woman reaches age 30, with very few exceptions there are palpable lumps in her breasts. In general, the nodularity, tenderness, and swelling associated with the term "fibrocystic disease" are progressive until the menopause, when they begin to subside. Some women continue to have symptoms and lumps for many years after menopause, and this presumably is due to estrogen, which derives from the secretion of the adrenal glands or from exogenous hormones given to alleviate menopausal symptoms. Nonetheless, the identification of a clinically worrisome lump is usually done more easily in the postmenopausal patient.

The term "fibrocystic disease" has no real meaning and probably should be abandoned. It has been useful in serving as a substitute for fibrocystic mastitis, which was also a meaningless term. The problem with suggesting abandonment of the term "fibrocystic disease" is that it is difficult to think of a better substitute. From the clinician's point of view, the term "fibrocystic disease" refers to a condition in which there are palpable lumps in the breast, usually associated with pain and tenderness that fluctuate with the menstrual cycle and that become progressively worse until the menopause. Microscopic analysis of fibrocystic disease shows various combinations of separate pathologic entities. The microscopic findings vary from patient to patient (Table 1). In general, the clinician is unable to diagnose these various microscopic entities by a physical examination. There are, however, some conditions that the clinician can suspect.

Fibroadenomas are usually round, smooth, nontender, and probably do not fluctuate with the menstrual cycle, although changes in the immediately adjacent fibrocystic disease may give the impression of cyclic change in the fibroadenoma itself. Fibroadeno-

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* Professor of Surgery and Chief of Surgical Oncology, Northwestern University Medical School; Chairman, Department of Surgery, Evanston Hospital, Evanston, Illinois.

Address for reprints: Edward F. Scanlon, MD, Professor of Surgery and Chief of Surgical Oncology, Northwestern University Medical School, Chairman, Dept. of Surgery, 2650 Ridge Ave., Evanston, IL 60201.

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