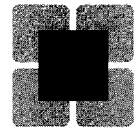

WILLIAM S. WILKE, MD, EDITOR

MAMMOGRAPHY: EFFECTIVE BUT UNDERUSED SCREENING TOOL

Mammography is underused as a screening tool for breast cancer, despite its proven value in early diagnosis. American Cancer Society (ACS) mammography screening guidelines apply to 50 million women, but only 5% to 15% of women in this population have periodic screening mammography. Although physicians adhere to other ACS screening guidelines, such as breast and physical examination (80%), Pap test (75%), chest radiography (58%), and stool for occult blood (48%), only 11% follow the ACS recommendations for mammography.

With an incidence of 27% and 130,000 new cases per year, breast cancer is the most frequent cancer in women. It is second only to lung cancer as a cause of female mortality, and mortality rates have not changed in the last 50 years. Screening by physical examination and periodic mammography could reduce mortality by 56%.

Regardless of the type of treatment used, the prognosis ultimately depends on how early the disease is detected. When the disease is localized to the breast, the five-year survival is as high as 91%.

When physicians are surveyed about their reasons for not using mammography, cost emerges as an important concern. With an appropriate approach to screening, the cost of mammography can be kept relatively low. For example, the cost of a mammogram in Cleveland ranges from $50 (at the Cleveland Clinic) to $180. The cost is low at the Clinic because of high volume and because of an efficient working relationship between radiologists and surgeons. The radiologist and surgeon work closely with each other and with the patient to reach a consensus on how to approach an abnormality. For example, if a lesion has a low index of suspicion, the patient may be advised to return in six months for a repeat mammogram, rather than proceeding directly to biopsy. This reduces expense and increases the yield on biopsy as well.

Risk of radiation exposure also is frequently cited as an argument against mammography. In fact, a mammogram delivers a mean glandular dose of approximately 0.1 rad to the breast; the theoretical risk is equivalent to traveling 70 miles by airplane, driving 10 miles by car, or smoking 1/8 of a cigarette.

Other objections have no basis in fact. For example, some physicians use mammography only in symptomatic patients, although the objective of a screening mammogram is to detect cancer before symptoms occur. Others believe that it is indicated only in patients "at risk," but most women with breast cancer have no identifiable risk factors.

Mammography is the only proven method capable of detecting nonpalpable breast cancers. Other tests, such as ultrasound, are occasionally useful only to help clarify abnormalities detected on a mammogram. They are not useful for screening purposes.

The main limitation of mammography is its inadequacy in dense, glandular breasts; in these patients, physical examination and breast self-examination are relatively more important.

The generally accepted guidelines for screening mammography are a baseline mammogram between ages 35 and 39, a mammogram every other year through age 49, and yearly after age 50.

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BIBLIOGRAPHY

Fox S, Baum JK, Klos DS, Tsou CV. Breast cancer screening: the underuse of mammography. Radiology 1985; **156**:607–611.

Mann LC, Hawes DR, Ghods M, Bednar EJ, Ptochen EJ. Utilization of screening mammography: comparison of different physician specialties. Radiology 1987; **164**:121–122.

TREATING HEADACHE AND CONCOMITANT DISEASE

Since the introduction of newer drugs for both prophylactic and acute therapy, treatment of the headache population has greatly expanded. Pharmacologic management of headache in the setting of concomitant medical illness correspondingly has increased in importance.

A number of conditions, such as hypertension and