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## 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

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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, Prochen 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

peptic ulcer disease, may be more prevalent in headache patients; other medical illnesses prevalent in the general population, such as coronary artery disease, also affect the headache population.

In managing headache patients, the physician should be aware of medications that may exacerbate either headache or a concurrent medical condition, and of alternative therapies for both conditions.

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#### HYPERTENSION

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Although headache is not considered a symptom of hypertension, the two disorders commonly occur together. Vasodilators such as hydralazine, minoxidil, prazosin, and nifedipine can exacerbate migraine as well as cluster headaches. Paradoxically, if the patient can be convinced to continue nifedipine therapy, migraine frequency may be reduced. Beta blockers such as nadolol and calcium channel blockers such as verapamil provide good antihypertensive therapy as well as headache prophylaxis. Beta blockers with partial agonist or intrinsic sympathomimetic activity, such as pindolol and acebutolol, may exacerbate migraine. Captopril is effective for migraine prophylaxis and as an adjunct to antidepressant therapy used for muscle contraction headache.

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#### CORONARY ARTERY DISEASE

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Ergotamine and methysergide, commonly used in the treatment of headache, should be avoided in the patient with coronary artery disease. Ergotamine can cause coronary vasospasm and methysergide can cause pericardial, cardiac, and pulmonary fibrosis. When a patient has chest pain and concurrent headache, it is important to define the disease before selecting drug therapy. Nitrates may be appropriate if the patient does indeed have coronary artery disease, but they will worsen headaches. Calcium channel blockers and beta blockers, the two drug classes used most widely for angina, also are effective for migraine prophylaxis. Nonsteroidal anti-inflammatory agents, which have no cardiac effects, are good choices for treatment of headache in these patients.

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#### MITRAL VALVE PROLAPSE

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Among patients with mitral valve prolapse, 58% of females and 31% of males have migraine, a prevalence that is two to three times higher than in the general population. Beta blocker therapy will control both the symptoms of mitral valve prolapse—chest pain, palpitations, and anxiety—and migraine.

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#### ASTHMA

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Almost 50% of patients with aspirin-sensitive asthma have migraine, compared to 13% among patients with non-aspirin sensitive asthma. This subgroup accounts for 4% to 20% of all asthma patients. Aspirin, or an aspirin-containing product with butalbital, will cause anaphylaxis in these patients, and beta blockers will exacerbate the asthma. Treatment options are limited to calcium channel blockers or angiotensin-converting enzyme inhibitors.

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#### PEPTIC ULCER

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Among those with cluster headache, the incidence of peptic ulcer may be three times higher than in the general population. The treatment of choice is cimetidine, sucralfate, or an antacid. The other two H<sub>2</sub> antagonists, ranitidine and famotidine, can trigger headaches, even among patients who have not had them previously.

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#### BIBLIOGRAPHY

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Featherstone HJ. Medical diagnoses and problems in individuals with recurrent idiopathic headaches. *Headache* 1985 May; 25 (3):136-140.

Solomon GD. Management of the headache patient with medical illness. *Clin J Pain* (in press).

### LYME DISEASE: DIAGNOSIS BY OBSERVATION

The incidence of Lyme disease is increasing nationally as well as in areas of low prevalence, such as Ohio. In 1987, 16 cases occurred in Ohio, of which two were acquired in the state. In 1988, the incidence in Ohio went up to 39 cases, with eight acquired in the state. Between 1984 and 1986, 1,500 cases were reported annually to the CDC. *Ixodes dammini* and *Ixodes pacificus* are the principal vectors of the disease in areas where the disease has been reported most: the northeastern and central United States, and the far West, respectively. However, more widespread distribution may occur in the future. The Lone Star tick, *Amblyomma americanum*, is ubiquitous in this country and has been demonstrated to harbor the spirochete that causes the disease, although it has rarely been directly incriminated