Imaging of the Breast

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It is currently estimated that breast cancer will develop in one out of every 11 women in America. Not only does carcinoma of the breast have the highest incidence of all cancers in women in the United States, but it also carries the highest mortality. The ultimate prognosis for this disease, regardless of the mode of therapy employed, depends primarily on the extent of the disease at the time of diagnosis. The survival data for locally advanced and disseminated disease are discouraging; however, when the disease is localized to the breast, the 5-year survival is approximately 85 per cent. Five-year survival rates of 93 per cent have been recorded for women with clinically occult (nonpalpable) cancers found by mammographic screening. It therefore becomes imperative to diagnose the disease when the lesion is small, ideally prior to clinical presentation.

Screening for breast cancer has been conclusively shown to be beneficial in a controlled screening program initiated in the early 1960s by the Health Insurance Plan (HIP) of New York. Using physical examination and early film mammography, a one-third reduction in mortality was achieved in the screened group relative to controls. While the indications for screening an asymptomatic population with mammography are still being defined, there is no doubt that mammography and other breast imaging modalities have a role to play in the evaluation of the symptomatic patient. The distinction between the evaluation of an asymptomatic patient in a screening program and the evaluation of a woman who presents to her physician with signs or symptoms of breast disease deserves emphasis. The indications for the use of the various imaging modalities for the breast

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