

Breast Cancer in Women Under 40 Years: Preoperative Detection by Mammography

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Abstract

Introduction: This article assesses the diagnostic sensitivity of mammography in the preoperative detection of breast cancer in young women. **Materials and Methods:** We retrospectively reviewed 1010 women with breast carcinoma between January 1996 and September 2002. The patients were identified from pathological reports. Of these, 237 women were below 40 years of age, accounting for 23.5% of all breast cancers. Only 76 of 237 patients had mammograms performed prior to surgery. Seventy-five of the 76 patients also had ultrasonography performed. Histological types were reviewed and the proportions of each type were compared with those found in a consecutive series of 773 breast carcinomas in women above 40 years of age seen during the same period in our hospital. The breast patterns, as seen on mammograms, were classified as follows: fatty, scattered fibroglandular, heterogeneously dense and homogeneously dense. Specific features of a mass, microcalcifications, architectural distortion and asymmetrical density were evaluated. **Results:** Of the 76 patients who had mammograms performed prior to surgery, 81 cancers were found. The patients' age ranged from 25 to 40 years, with a mean of 36.4 years. The breast parenchymal patterns were homogeneously dense in 6.6%, heterogeneously dense in 67.1% and had scattered fibroglandular density in 26.3%. Abnormal mammographical findings were present in 93.8%. The most common mammographical findings were mass in 60% and microcalcifications, with or without associated breast abnormality, in 28.7%. The most frequent tumour (82.7%) was invasive ductal carcinoma, which is not significantly different to those found in older women ($P = 0.895$). Ultrasonography showed solid masses in 73 patients and was negative in the other 2 patients. **Conclusion:** Mammography is a useful imaging technique in providing preoperative detection and diagnosis of breast carcinoma in women below 40 years of age with clinical suspicion of malignancy. Mass and microcalcifications are the most common abnormal mammographical findings and invasive ductal carcinoma is the most common tumour found in our study.

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