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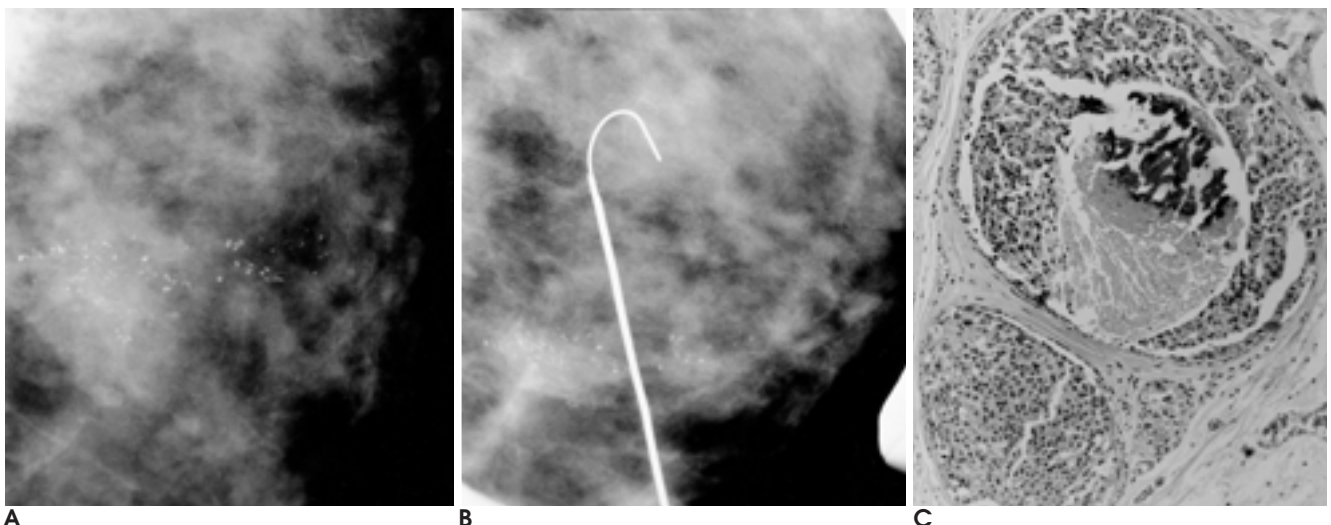
(2, 3) (Fig. 1),

(Table 2).

(4, 5) (Fig. 2).

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441 ( , 가 가 . , , , 68 (15.4%) , 241 46 (19.1%) , 28 (60.9%) , 200 22 , (11.0%), 5 (22.7%) , (6), 241 195 , (7, 8), 22 , 24 , 24 , 195 1 , 2 , , 1 , 12 40 , 22 241 195 1 , 1 , 1 , 24 1 , 1 , , 28 ( , 2 (60.9%) , 46 28 40 , 27 (67.5%) , ). (Table 1). 2 22 24 2 4 1 5 , 3 , 1 , 1 , 2 , 1 , 12 , 21 17 (77.3%) , . 200 22 , 17



**Fig. 1.** Mammography guided localization.  
**A.** Mammography shows pleomorphic clustered microcalcifications.  
**B.** Localized under mammography guidance.  
**C.** High-power photomicrograph shows comedo type ductal cancer in situ with central calcification.

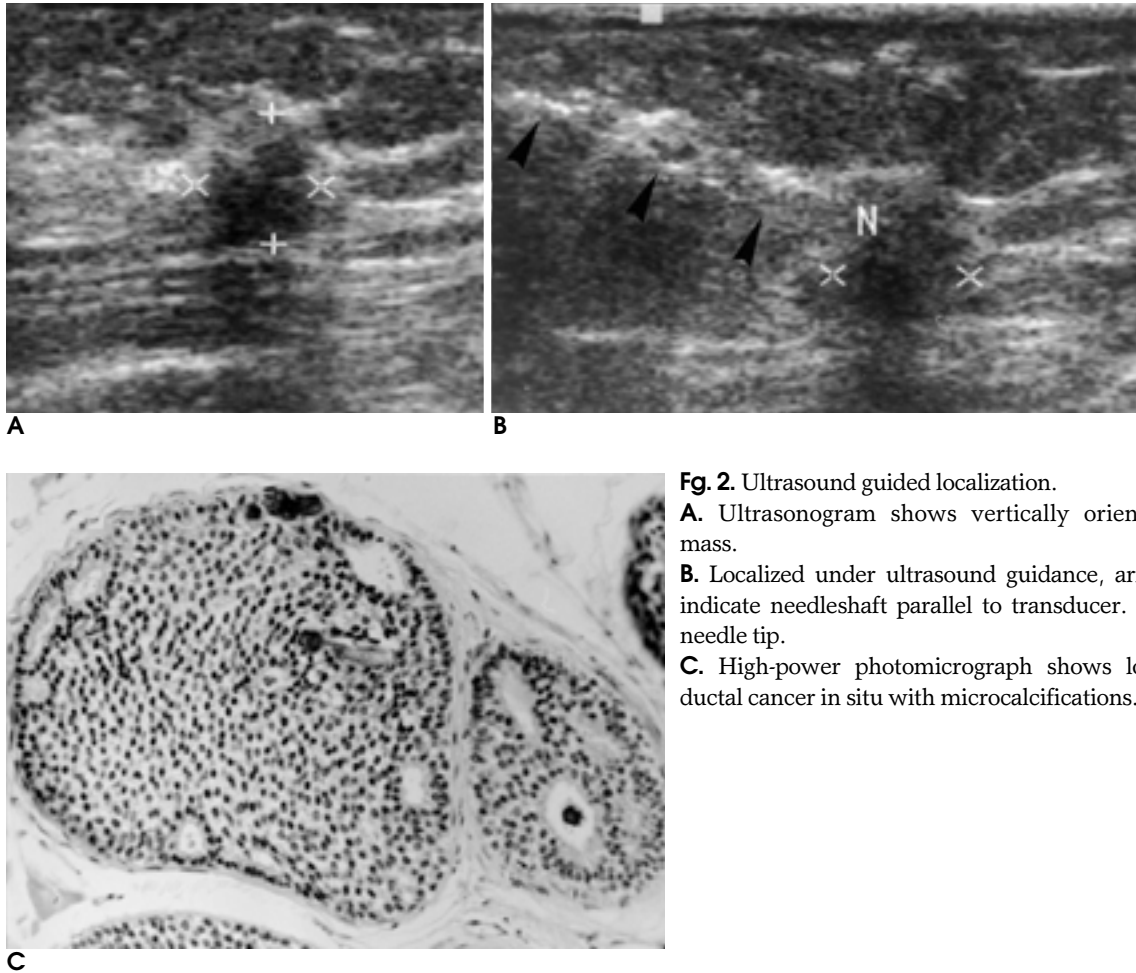
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**Fig. 2.** Ultrasound guided localization.**A.** Ultrasonogram shows vertically oriented solid mass.**B.** Localized under ultrasound guidance, arrowheads indicate needleshaft parallel to transducer. N: marks needle tip.**C.** High-power photomicrograph shows low grade ductal cancer in situ with microcalcifications.**Table 1.** Indication and Pathology of Mammography Guided Biopsy of Nonpalpable Lesions in Breast

	Noninvasive carcinoma		Invasive carcinoma		Total
Clustered microcalcification only (N = 95)	DCIS	24	Tubular carcinoma	1	
	DCIS + LCIS	1	Invasive ductal carcinoma	12	
	DCIS + microinvasion	2			
Subtotal		27		13	40
Mass (N = 22)			Tubular carcinoma	1	
			Invasive ductal carcinoma	1	
Subtotal				2	2
Mass + calcification (N = 24)	DCIS	1	Tubular carcinoma	1	
			Invasive ductal carcinoma	2	
Subtotal		1		3	4
Total (N = 241)		28		18	46

DCIS : Ductal Cancer In Situ

LCIS : Lobular Cancer In Situ

	Noninvasive carcinoma	Invasive carcinoma	Total
Mammography guided lesions (N = 241)	DCIS	25	3
	DCIS + LCIS	1	15
	DCIS + microinvasion	2	
Subtotal	28	18	46
Ultrasound guided lesions (N = 200)	DCIS	3	2
	LCIS	1	1
	DCIS + microinvasion	1	1
			1
			12
Subtotal	5	17	22
Total (N = 441)	33	35	68

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## The Results of Mammography and Ultrasound-Guided Localization Biopsy of Nonpalpable Breast Lesions, and the Differences between Them<sup>1</sup>

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**Purpose:** To evaluate the results of mammography and ultrasound-guided localization biopsy of nonpalpable lesions, and the differences between them.

**Materials and Methods:** Between January 1999 and December 2000, localization biopsies of 441 nonpalpable breast lesions were performed immediately after preoperative localization using a wire hook. Localization was mammography guided in 241 cases and ultrasound guided in 200. The former group included clustered microcalcifications (195/241, 80.9%), mass (22/241, 9.1%) and mass with microcalcifications (24/241, 10.0%), while the latter were almost all mass, or mass with microcalcifications (198/200, 99%). Only two lesions (1%) showed clustered microcalcifications only, and these were previously demonstrated at mammography.

**Results:** Overall, 68 lesions (15.4%) were confirmed as malignancy. Forty-six of 241 mammography guided localization biopsies indicated malignancy: there were 28 noninvasive carcinomas (60.9%), 25 ductal cancers *in situ* (DCIS), one DCIS combined with lobular cancer *in situ* (LCIS), and two DCIS combined with microinvasion. Twenty-two of 200 ultrasound-guided localization biopsies revealed malignancy; five such lesions (22.7%) were noninvasive carcinomas.

**Conclusion:** The malignancy rate and proportion of noninvasive breast cancers indicated by mammography and ultrasound-guided localization biopsy differed, and this was because the former involved mainly microcalcifications and the latter, masses.

**Index words :** Breast neoplasms  
Breast, biopsy

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