

1

2 3

otactic Core Biopsy: ASCB) 134 (Add - on Stere -

: 3 5 125 134 ASCB  
23 , 39 38 , 18 , 가 78

: 134 127 (95%)  
47% (18/38), 5% (4/78)가 (ASCB)

78.3% (18/23) , 5 2 ASCB . 5  
3 , 2 , 4 가  
17.3

가 13 (10.4%) , ,

: 가 ASCB ,  
가

가

가

가

가

(add - on stereotactic core biopsy:

ASCB) 134 ,

(1 - 5),

(1, 4, 6).

(add - on unit)

(prone table unit)

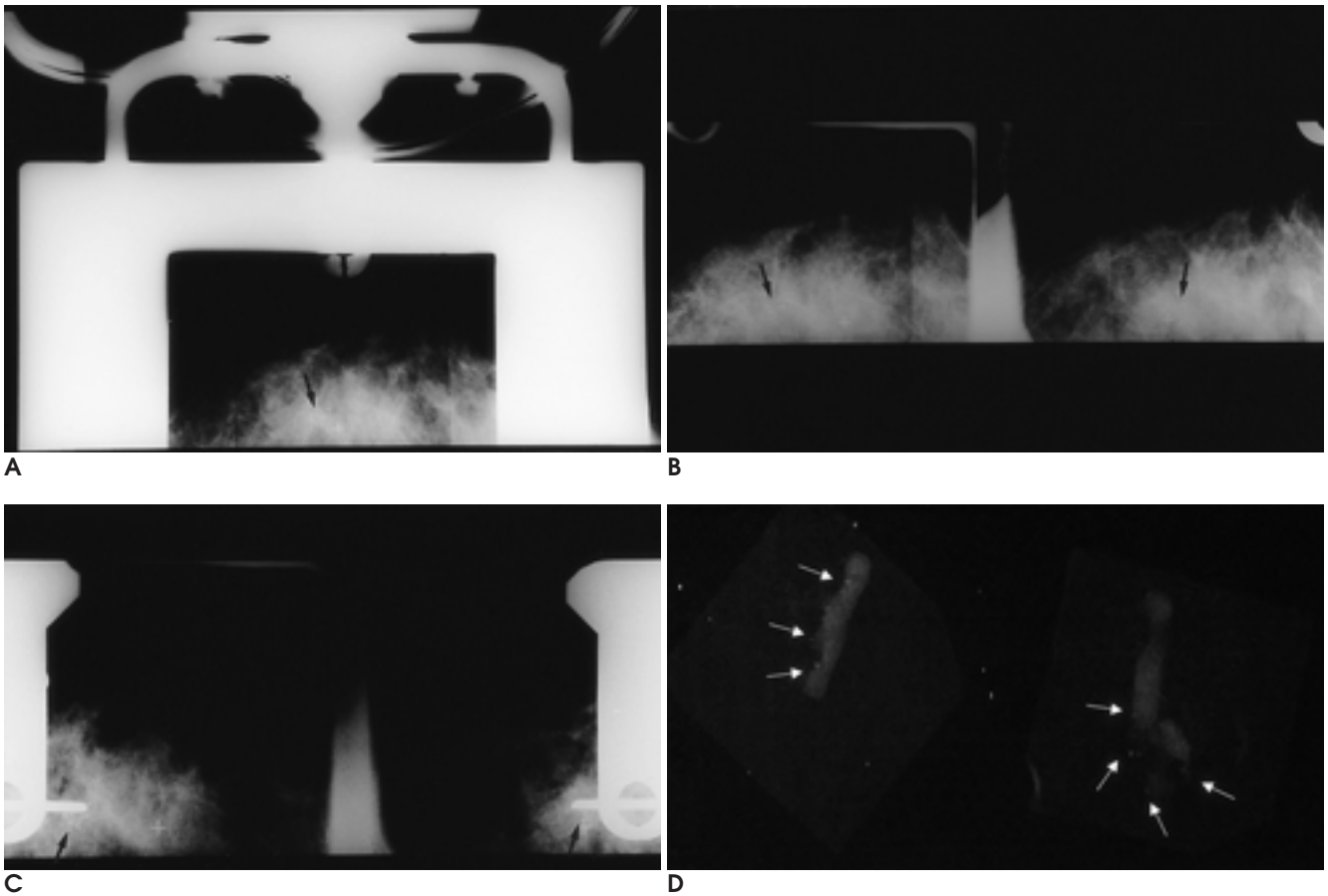
가 가  
가

1996 2 1999 6  
ASCB 125 134  
. 5 2 , 1 3  
, 2 6 1

2 24  
70 46.7

Giotto Hi - Tech Mammography

(IMS, Bologna, Italy) , (Manan (23  
 Medical Products, Northbrook, Ill, U.S.A.) 18, kVp, 4 mA) (Fig. 1D).  
 16, 14 1 - , , 가  
 14 5.4 가 , , 가  
 , ,  
 (Fig. 1A), +24. - 24.  
 (stereo - scout film) 23  
 3 (Fig. 1B). ASCB (18 )  
 2% (lidocaine) 8 - 10 cc , (2 ), ASCB 가  
 . (3 ) 39  
 +24. - 24.  
 (Fig. 1C).  
 , mm 가  
 가 . 가



**Fig. 1.** Localization of the lesion with Add-on Stereotactic Core Biopsy (ACSB) system.

**A.** Craniocaudal mammogram with add-on stereotaxic core biopsy system confirms the location of the lesion in the center of the small rectangular window of the compression paddle (arrow).

**B.** After confirming the location of the lesion in the window, two stereoscopic views are obtained to calculate the 3-dimensional location of the lesion (arrows).

**C.** Postfire stereoscopic images shows the needle tip passed through the center of the clustered microcalcifications (arrows).

**D.** Specimen radiography shows a few microcalcifications in the core specimen (arrows).

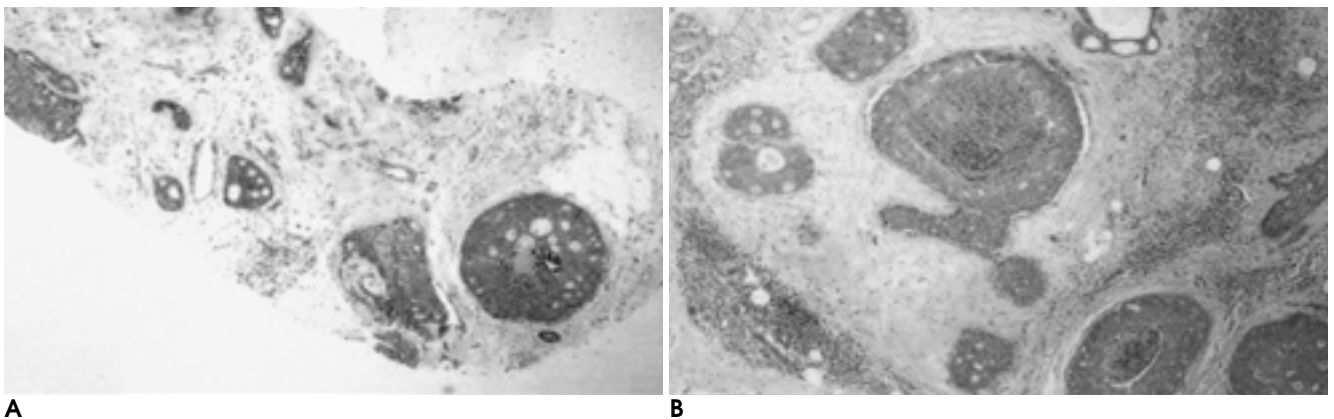
2 , 6 ), 12 .  
1 .  
38 18 (47%)  
78 4 (5%) 가  
134 가 99 ,  
16 , 가 7 , 4 , (Table 2).  
4 , 가 4 .  
가 38 ,  
가 18 ,  
가 78 .  
134 127 (95%)  
, 7 (5%)  
1 - 14 5.4 . 5 )  
96 2 9 18 18 17% (3/18), 16 5% (3/66),  
(18 ), 96 10 98 5 16 (66 14 2% (1/50)  
, 98 6 99 6 14 (50 )  
11 , 11 , 93 ( 23  
58 , 20 , 5 , 2 , 가 3 , 가 9 , 가 11 .

**Table 1.** Mammographic Findings vs. Results of Add-on Stereotactic Core Biopsy (ASCB)

Mammographic Findings	Results of ASCB				Total
	Malignant	Benign	Normal	Inadequate	
Microcalcification	13	73(4)*	10	3	99
Increased density with calcification	5	7	1	3	16
Nodular density	0	6	1	0	7
Spiculated density	3	0	0	1	4
Architectural distortion	0	4	0	0	4
Architectural distortion with calcification	1	3(1)*	0	0	4
Total	22	93	12	7	134

Note. -numbers are numbers of lesions.

\*Numbers in parenthesis are numbers of atypical ductal hyperplasia



**A**

**B**

**Fig. 2.** Comparison of core biopsy and surgical histopathologic specimens of the breast cancer.

**A.** Photomicrography of pathologic specimen from ASCB shows intraductal carcinoma.

**B.** Photomicrography of histologic specimen from surgical excisional biopsy shows same intraductal carcinoma.



가 , 가 . , 97 - 100% ASCB 가

가 , 6 1  
, , , 가 (1, 3, 13). 가  
, 가  
, 가  
, 가  
.

ABBI(advanced breast biopsy instrumentation)

가 (11, 12), , 가  
eibman 54 (3 - 4, 14 - 15). Elvecrog (3)  
7 1 가 100

94 - 100% ,  
(1 - 4), 95% (16). Helvie (14)  
83 - 94% 370  
(2 - 6), 78.3% (18/23) (vasovagal reaction)  
가 27 , 5 3 ,  
2 . 5.6%  
(1 - 6). 18 , , (1 ), (3 ),  
(2 ), (1 )

(2), 14, (4).  
가 가  
가 (1, 6), 가  
가 2 75 - 80% 5 86 - 100%  
가 (1).  
(1, 4, 6).

가 , , , . 가 . 가 Brenner (1) 5 1 4 36 , Elvecrog 34 , 1 , 1 가 . 5 1 4 가 5 2 , 2 , 1 2 . Liberman (13) 가 , 3 ,

ASCB  
가  
가

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## Results with Add-on Stereotactic Core Biopsy (ASCB) of the Breast Lesions<sup>1</sup>

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**Purpose:** To report the results of 134 cases in which add-on stereotactic core biopsy (ASCB) was performed in patients with mammographically detected breast lesions, and to evaluate the usefulness of this procedure.

**Materials and Methods:** We analyzed the results of ASCB of 134 breast lesions in 125 patients, performed during a 41-month period. The mammographic findings were suspicious malignant lesion in 38 cases, benign lesion in 18, and indeterminate lesion in 78. Surgical excision was performed in 23 cases, and follow-up mammography in 39. We analyzed the pathologic results according to each mammographic finding and correlated the results of core biopsy with those of surgical excision. We also evaluated the mammographic changes seen during follow-up, and associated complications and procedural difficulties.

**Results:** Samples were adequate for pathologic diagnosis in 95% of cases (127/134). ASCB revealed malignancy in 47% of cases (18/38) in which this was suspected on the basis of mammographic findings, and in 5% of cases (4/78) in which these findings were indeterminate. The pathologic results of core biopsy and of surgical excision agreed in 78% of cases (18/23). In two of five false-negative cases, ASCB revealed the presence of atypical ductal hyperplasia. The mammographic findings in these five cases were suspicious malignancy in three, and indeterminate in two. Specimen radiography showed calcifications in four cases. The size or extent of mammographic lesions did not change during the mean follow-up period of 17.3 months. In 13/125 patients (10%), the complications and procedural difficulties noted included arterial bleeding, dizziness, syncope, patient movement, and instrument failure.

**Conclusion:** ASCB is accurate, safe and useful, but surgical excision should be considered when the ASCB result is either atypical ductal hyperplasia or benign but with mammographic diagnosis of suspicious malignant or indeterminate lesions.

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

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