

Specifications:

- No. of cases: 50
- Tissue type: Breast cancer tissues
- No. of spots: 2 spots from each cancer case (100 spots)
8 non-neoplastic spots (8 spots)
- Total spots: 108
- Corresponding normal tissues with cancers: Yes
- Diameter: 1.0 mm

Documents:

- Product specification: layout, summary of tissue spots
- H&E stained images
- Detailed pathological information

Layout:



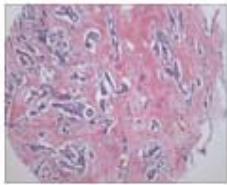
Summary of tissue spots

No	Coordinate	Sex	Age	Key Word	Surgery	HG	NG	
1	A	1, 2	f	61	Breast: infiltrating ductal carcinoma	radical mastectomy	1	3
2		3, 4	f	46	Breast: infiltrating ductal carcinoma	lumpectomy	1	2
3		5, 6	f	61	Breast: infiltrating ductal carcinoma	excision	1	2
4		7, 8	f	43	Breast: postexcisional biopsy state Breast: infiltrating ductal carcinoma	radical mastectomy	1	2
5		9, 10	m	77	Breast: papillary carcinoma	mastectomy		
6		11, 12	f	65	Breast: intraductal carcinoma Breast: papilloma Breast: ductal carcinoma in-situ Breast: papillary carcinoma	excision		
7	B	1, 2	f	48	Breast: infiltrating ductal carcinoma	radical mastectomy	1	2
8		3, 4	f	35	Breast: infiltrating ductal carcinoma	total mastectomy	1	2
9		5, 6	f	72	Breast: infiltrating ductal carcinoma	radical mastectomy	1	2
10		7, 8	f	41	Breast: infiltrating ductal carcinoma	lumpectomy	1	3
11		9, 10	f	45	Breast: papillary carcinoma	mastectomy		
12		11, 12	f	67	Breast: papillary carcinoma	excision		
13	C	1, 2	f	42	Breast: infiltrating ductal carcinoma	radical mastectomy	1	3
14		3, 4	f	69	Breast: infiltrating ductal carcinoma	radical mastectomy	1	3
15		5, 6	f	47	Breast: infiltrating ductal carcinoma	radical mastectomy	1	3
16		7, 8	f	78	Breast: nfiltrating ductal carcinoma	Frozen Excision	1	2
17		9, 10	f	43	Breast: ductal carcinoma in-situ Breast: papillary carcinoma	biopsy		
18		11,12	f	51	Breast: papillary carcinoma	mastectomy		
19	D	1, 2	f	60	Breast: Invasive micropapillary carcinoma	excision		
20		3, 4	f	36	Breast: infiltrating ductal carcinoma	radical mastectomy	2	1
21		5, 6	f	38	Breast: infiltrating ductal carcinoma	mastectomy	2	1
22		7, 8	f	64	Breast: infiltrating ductal carcinoma	radical mastectomy	2	1
23		9, 10	f	59	Breast: papillary carcinoma Breast: invasive ductal carcinoma	radical mastectomy		
24		11, 12	f	37	Breast: phyllodes tumor Breast: cystosarcoma phyllodes malignant	excision		
25	E	1, 2	f	69	Breast: infiltrating ductal carcinoma	simple mastectomy	2	2
26		3, 4	f	44	Breast: infiltrating ductal carcinoma Breast: mucinous carcinoma	frozen biopsy	2	2
27		5, 6	f	45	Breast: infiltrating ductal carcinoma	frozen biopsy	2	2
28		7, 8	f	48	Breast: infiltrating ductal carcinoma	partial mastectomy	2	2
29		9, 10	f	46	Breast: phyllodes tumor	frozen biopsy		
30		11, 12	f	45	Breast: cystosarcoma phyllodes Breast: phyllodes tumor Breast: malignant tumor	excision		

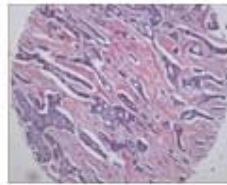
Summary of tissue spots

No	Coordinate	Sex	Age	Key Word	Surgery	HG	NG
31	1, 2	f	68	Breast: infiltrating ductal carcinoma	lumpectomy	2	2
32	3, 4	f	56	Breast: infiltrating ductal carcinoma	mastectomy	2	2
33	5, 6	f	40	Breast: infiltrating ductal carcinoma	radical mastectomy	2	2
34	7, 8	f	67	Breast: infiltrating ductal carcinoma	frozen biopsy		
35	9, 10	f	59	Breast: infiltrating lobular carcinoma	radical mastectomy		
36	11, 12	f	82	Breast: infiltrating lobular carcinoma	frozen biopsy		
37	1, 2	f	37	Breast: infiltrating ductal carcinoma	lumpectomy	3	1
38	3, 4	f	38	Breast: infiltrating ductal carcinoma Breast: comedocarcinoma lymph node : metastatic adenocarcinoma	total mastectomy	3	1
39	5, 6	f	38	Breast: infiltrating ductal carcinoma	radical mastectomy	3	1
40	7, 8	f	49	Breast: infiltrating ductal carcinoma	radical mastectomy	3	1
41	9, 10	f	56	Breast: infiltrating lobular carcinoma	lumpectomy		
42	11, 12	f	45	Breast: infiltrating lobular carcinoma	radical mastectomy		
43	1, 2	f	36	Breast: infiltrating ductal carcinoma	lumpectomy	3	2
44	3, 4	f	39	Breast: infiltrating ductal carcinoma	mastectomy	3	1
45	5, 6	f	66	Breast: infiltrating ductal carcinoma Breast: apocrine carcinoma	mastectomy	3	1
46	7, 8	f	45	Breast: infiltrating ductal carcinoma	frozen biopsy		
47	1, 2	f	68	Breast: infiltrating ductal carcinoma	frozen biopsy		
48	3, 4	f	69	Breast: papillary carcinoma	radical mastectomy	II/III.	II/III.
49	5, 6	f	42	Breast: invasive ductal carcinoma Breast: papillary carcinoma	excisional biopsy	2	
50	7, 8	f	44	Breast: papillomatosis Breast: papillary carcinoma Breast: ductal carcinoma in-situ	lumpectomy		
51	9, 10*	f	41	Breast: infiltrating ductal carcinoma	lumpectomy	1	3
52	11, 12*	f	46	Breast: infiltrating ductal carcinoma	lumpectomy	1	2
53	9, 10*	f	38	Breast: infiltrating ductal carcinoma Breast: comedocarcinoma lymph node : metastatic adenocarcinoma	total mastectomy	3	1
54	11, 12*	f	39	Breast: infiltrating ductal carcinoma	mastectomy	3	1
				HG : Modified Bloom-Richardson's histological grade			
				NG: Black's nuclear grade			
				*: Non-neoplastic			

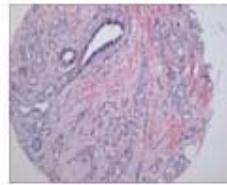
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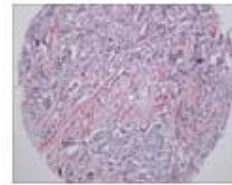
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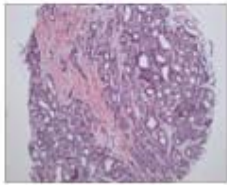
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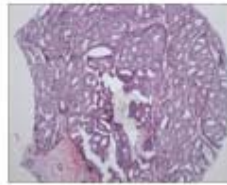
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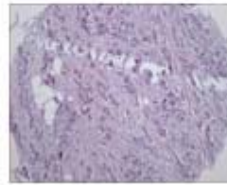
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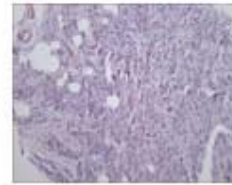
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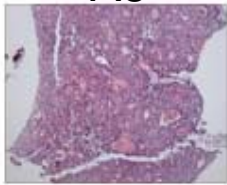
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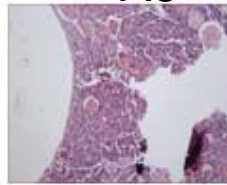
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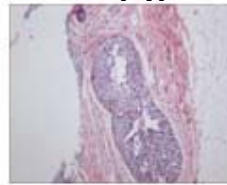
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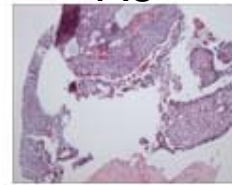
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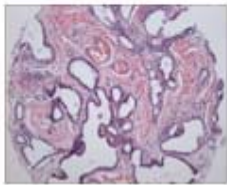
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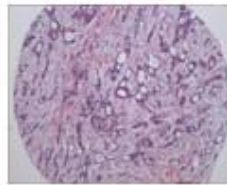
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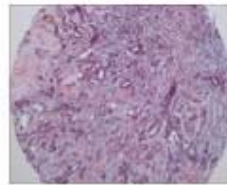
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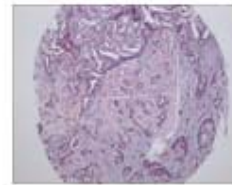
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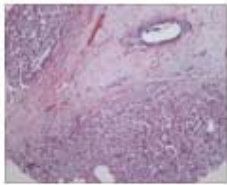
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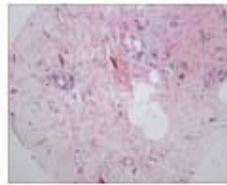
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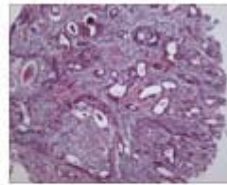
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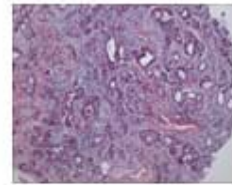
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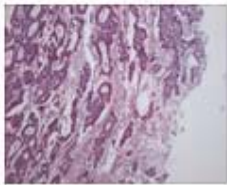
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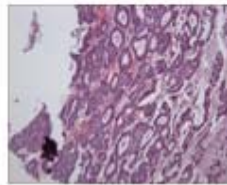
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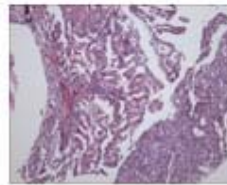
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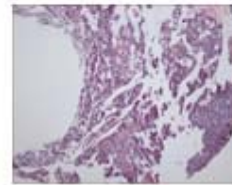
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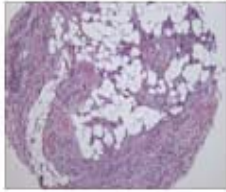


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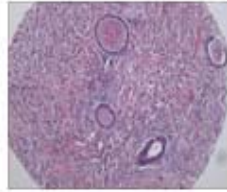


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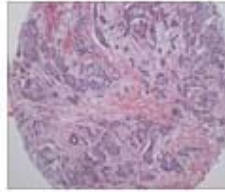
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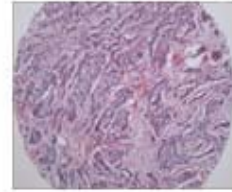
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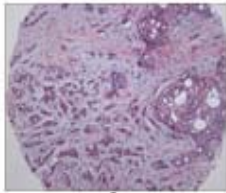
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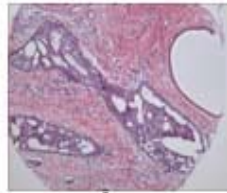
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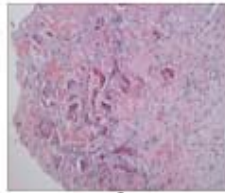
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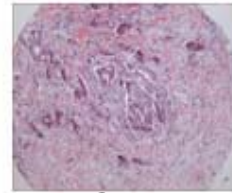
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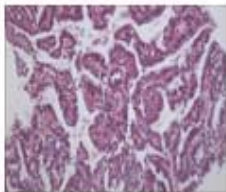
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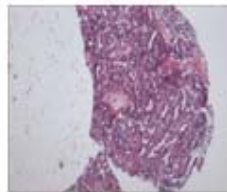
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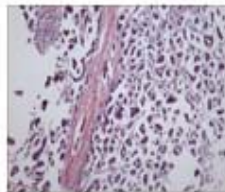
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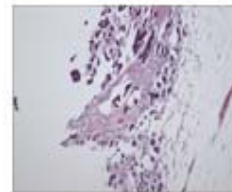
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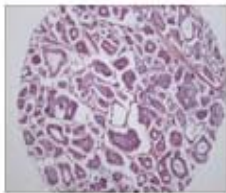
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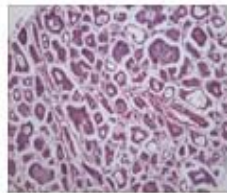
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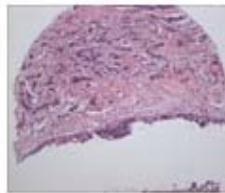
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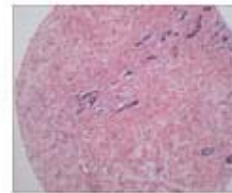
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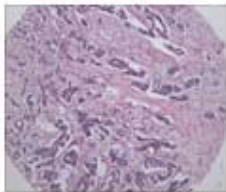
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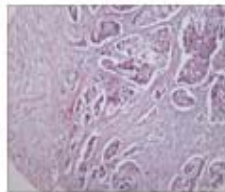
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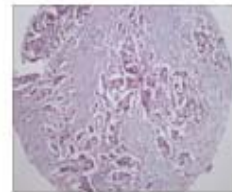
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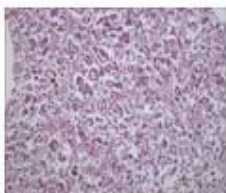
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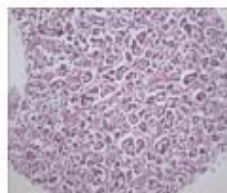
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D8



D9



D10

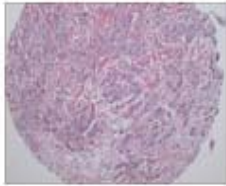


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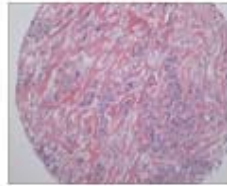


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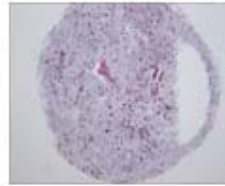
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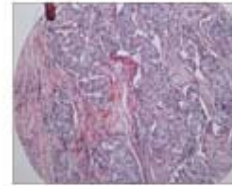
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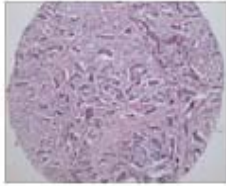
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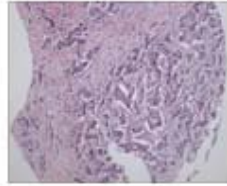
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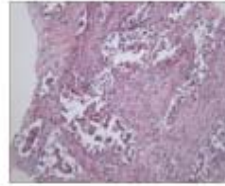
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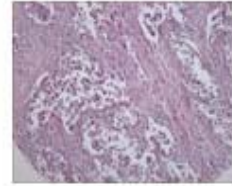
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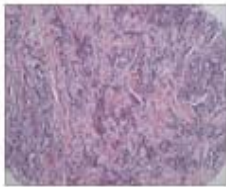
E6



E7



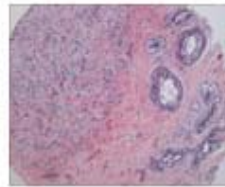
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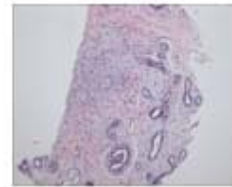
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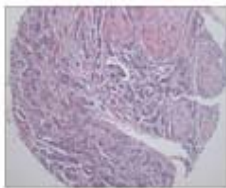
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E11



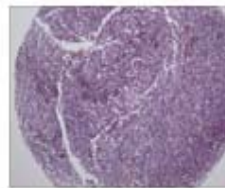
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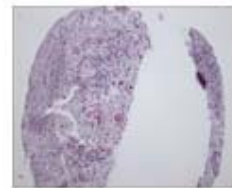
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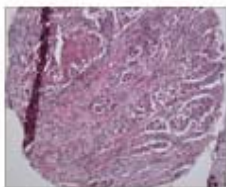
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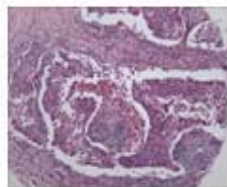
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F4



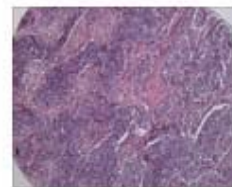
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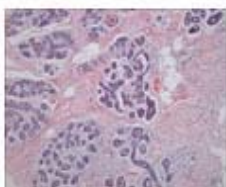
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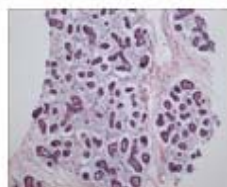
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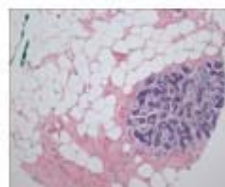
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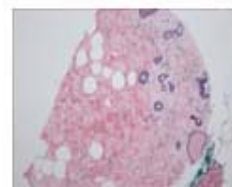
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F10

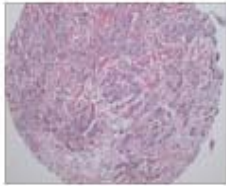


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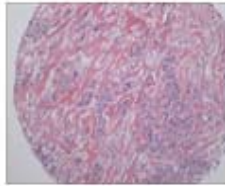


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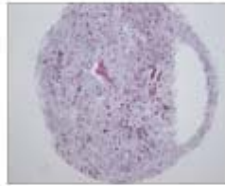
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Haematoxylin and Eosin staining



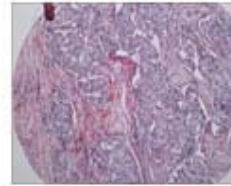
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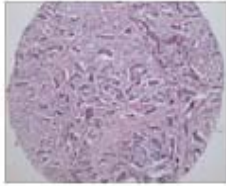
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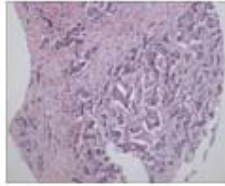
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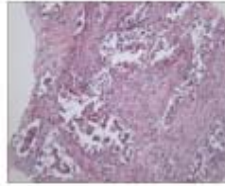
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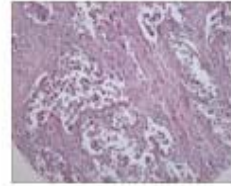
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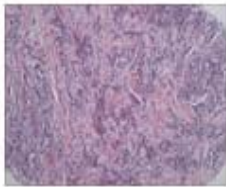
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G7



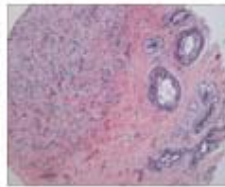
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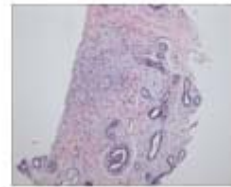
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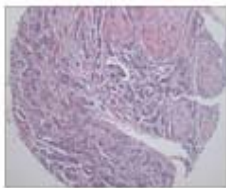
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G11



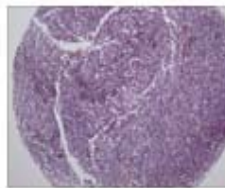
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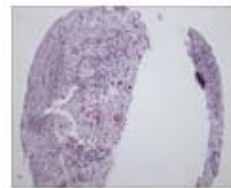
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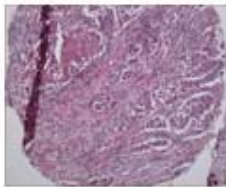
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H3



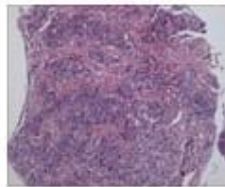
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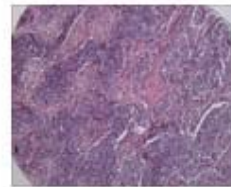
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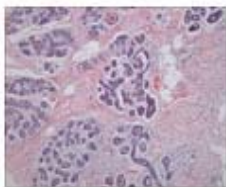
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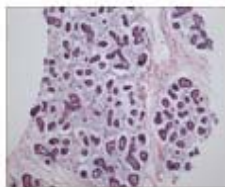
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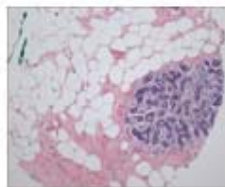
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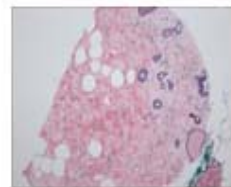
H9



H10



H11



H12

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
1	A	1, 2	f	61	breast: infiltrating ductal carcinoma	<p>Breast, right, modified radical mastectomy:</p> <p>Infiltrating ductal carcinoma</p> <ol style="list-style-type: none"> 1. Black's nuclear grade 3 (well differentiated) 2. Modified Bloom-Richardson's histological grade I (tubule formation: 1, nuclear pleomorphism: 1, mitosis:1) 3. With features of cribriform carcinoma 4. Intraductal component: <10% 5. Frequent perineural invasion 6. No lymphatic permeation <p>Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillar (0/18), level II (0/6), level III (0/0): (0/24): free of tumor</p>	radical mastectomy	1	3	T2N0M0	ER, PR: + C erb B2:-
2	A	3, 4	f	46	breast: infiltrating ductal carcinoma	<p>Breast, right, lumpectomy:</p> <ol style="list-style-type: none"> 1. Infiltrating ductal carcinoma, nuclear grade 2, Histologic grade I with minimal intraductal component (less than 5%) 2. Intraductal papillomatosis. Resection margins, superior, inferior and lateral: free of tumor <p>Resection margins, labelled as "new margin(medial)":</p> <ol style="list-style-type: none"> 1. Free of carcinoma 2. Focal presence of atypical ductal hyperplasia in superomedial side 	lumpectomy	1	2	T1cN0M0	ER, PR: + C erb B2: -
3	A	5, 6	f	61	breast: infiltrating ductal carcinoma	<p>Breast, left, frozen excision:</p> <p>Infiltrating ductal carcinoma, nuclear grade 2, histologic grade I with intraductal component, 10%</p>	excision	1	2	T1cN0M0	ER, PR: + C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
4	A	7, 8	f	43	breast: postexcisional biopsy state breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Status post excisional biopsy with a residual and separate infiltrating ductal carcinoma 1. Size: 1.6x1.0x1.0 cm 2. Black's nuclear grade 2 (moderately differentiated) 3. Modified Bloom-Richardson's histological grade I (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 1) 4. No vascular invasion 5. Intraductal component: about 5% Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary (1/20), level II (0/0) : (1/20): metastatic adenocarcinoma in one out of 20 nodes (size of metastasis: 6 mm) with focal pericapsular extension (pN1biii)	radical mastectomy	1	2	T1cN1M0	ER, PR: + C erb B2:-
5	A	9, 10	m	77	breast: papillary carcinoma	Breast, right, mastectomy: Invasive papillary carcinoma, invading into skin Nipple and areola: free of tumor Underlying fascia: tumor present within 1mm from the margin Regional lymph node (0/12): free of tumor	mastectomy			T4bN0M0	ER, PR: + C erb B2: -
6	A	11, 12	f	65	breast: intraductal carcinoma breast: papilloma breast: ductal carcinoma in-situ breast: papillary carcinoma	Breast, left, excision: Intraductal carcinoma and noninvasive papillary neoplasm (carcinoma arising in papilloma), with involvement of surgical margin	excision			TxN0M0	ER, PR:+ C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
7	B	1, 2	f	48	breast: infiltrating ductal carcinoma	<p>Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma with</p> <ol style="list-style-type: none"> 1. Black's nuclear grade 2(moderately differentiated) 2. Modified Bloom-Richardson's histological grade I (tubule formation 1, nuclear pleomorphism 2, mitosis: 1) 3. Areas of tubular carcinoma and cribriform carcinoma 4. Associated with extensive ductal carcinoma in situ (micropapillary, clining type) and columnar cell changes <p>Nipple and areola: dermal involvement of infiltrating ductal carcinoma Underlying fascia: involvement of ductal carcinoma in situ Regional lymph node, axillary (0/18), level II (0/4) : (0/22): free of tumor</p>	radical mastectomy	1	2	T2N0M0	ER, PR: - C erb B2: -
8	B	3, 4	f	35	breast: infiltrating ductal carcinoma	<p>Breast, right, total mastectomy: Infiltrating ductal carcinoma with prominent tubular differentiation</p> <ol style="list-style-type: none"> 1. Black's nuclear grade 2 (moderately differentiated) 2. Modified Bloom-Richardson's histological grade I (tubule formation:1, nuclear pleomorphism:2, mitosis:1) 3. Intraductal component > 30% 4. EIC(extensive intraductal component): positive 5. No vascular permeation 6. ER(+), PR(+), CerB2(-) <p>Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor</p>	total mastectomy	1	2	T1cN1aM0	ER, PR: + C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
9	B	5, 6	f	72	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade 2 (moderately differentiated) 2. Modified Bloom-Richardson's histological grade I (tubule formation:2, nuclear pleomorphism:2, mitosis:1) 3. Presence of EIC(extensive intraductal component) 4. No vascular permeation Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary (0/6): free of tumor	radical mastectomy	1	2	T1cN1aM0	ER, PR: + C erb B2:-
10	B	7, 8	f	41	breast: infiltrating ductal carcinoma	Breast, lumpectomy: Infiltrating ductal carcinoma, nuclear grade 3 (well differentiated) Histologic grade I with extensive intraductal component (about 30-40%) Resection margins, all circumference: free of tumor	lumpectomy	1	3	T1bN0M0	ER, PR: + C erb B2:-
11	B	9, 10	f	45	breast: papillary carcinoma	Breast, left, partial mastectomy: Papillary carcinoma with osteoclastic-type giant cells Note: There is questionable evidence of minimal focal	mastectomy				ER, PR: + C erb B2: -
12	B	11, 12	f	67	breast: papillary carcinoma	Breast, excision: Papillary carcinoma, intraductal with focal microinvasion	excision			T1cN0M0	ER, PR:- C erb B2:+
13	C	1, 2	f	42	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma, Black's nuclear grade 3 (well differentiated) Modified Bloom-Richardson's histological grade I (tubule formation: 2, nuclear pleomorphism: 1, mitosis: 1) Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: Close to tumor (within 1 mm) Regional lymph node, axillary (3/15), level II (0/1), level III (0/1) : (3/17): tumor metastasis in 3 out of 15 nodes (pN1bi)	radical mastectomy	1	3	T2N1bM0	ER, PR: + C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
14	C	3, 4	f	69	breast: infiltrating ductal carcinoma	Breast, left, radical mastectomy: Infiltrating ductal carcinoma 1. Size: 5x4x3 cm 2. Black's nuclear grade 3(well differentiated) 3. Modified Bloom-Richardson's histological grade I (tubule formation: 3, nuclear pleomorphism: 1, mitosis: 1) 4. No vascular invasion 5. Deep fascial margin involved by tumor 6. No intraductal component Nipple and areola: free of tumor Overlying skin: free of tumor Regional lymph node, axillary (0/16), level II (0/2) : (0/18): free of tumor	radical mastectomy	1	3	T2N0M0	ER, PR: + C erb B2:-
15	C	5, 6	f	47	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: 1. Infiltrating ductal carcinoma, nuclear grade 3 (well differentiated), Histologic grade I 2. Intraductal component: 10-15% Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Lymph nodes, axillary (6/14): tumor metastasis to 6 out of 14 lymph nodes with perinodal soft tissue extension (pN1biii) Lymph nodes, unlabelled (0/5): free of tumor	radical mastectomy	1	3	T3N2aM0	ER, PR: + C erb B2:-
16	C	7, 8	f	78	breast: nfiltrating ductal carcinoma	Breast, Frozen Excision: Infiltrating ductal carcinoma, nuclear grade 2, histologic grade 1. (tubule formation 2, mitotic grade 1) according to Bloom and Richardson and intraductal component less than	Frozen Excision	1	2		
17	C	9, 10	f	43	breast: ductal carcinoma in-situ breast: papillary carcinoma	Breast, right, biopsy: 1) ductal carcinoma in situ 2) papillary carcinoma	biopsy			T1bN0M0	ER, PR: + C-erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
18	C	11,12	f	51	breast: papillary carcinoma	Breast, right, mastectomy: Invasive micropapillary carcinoma with occasional lymphatic permeation Resection margins, superior, medial, lateral, anterior and posterior: free of tumor Resection margin, inferior(nipple): extension of invasive ductal carcinoma	mastectomy			T1cN1aM0	ER, PR:+ C erb B2:-
19	D	1, 2	f	60	breast: Invasive micropapillary carcinoma	Breast, Invasive micropapillary carcinoma	excision			T2NxM0	ER, PR: + C erb B2:-
20	D	3, 4	f	36	breast: infiltrating ductal carcinoma	Breast, right, modified radical mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade II (tubule formation: 2, nuclear pleomorphism: 3, mitosis: 2) 3. Frequent bizarre nuclear change and stromal fibrosis, due to previous chemotherapy 4. No lymphatic permeation 5. Intraductal component: less than 15% 6. Focal involvement of deep dermis of the skin 7. Focal extension to skeletal muscle Nipple and areola: Pagetoid involvement of lactiferous ducts and peri-lactiferous ductal invasion of infiltrating ductal carcinoma Underlying fascia: free of tumor Regional lymph nodes: axillary (6/6), level II+III (2/2) : (8/8): tumor metastasis in all 8 nodes (pN2: Metastasis to ipsilateral axillary lymph nodes that are fixed to one another with extensive perinodal structure)	radical mastectomy	2	1	TxN2aM0	ER, PR: + C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
21	D	5, 6	f	38	breast: infiltrating ductal carcinoma	<p>Breast, right, mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade: 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade II tubule formation:1, nuclear pleomorphism: 3, mitosis: 2) 3. Rare intraductal component (< 5%) 4. No lymphatic permeation Resection margins, all: free of tumor Note: The tumor is close to the posterior margin (about 5 mm).</p>	mastectomy	2	1	T1cN0M0	ER, PR:- C erb B2: -
22	D	7, 8	f	64	breast: infiltrating ductal carcinoma	<p>Breast, left, modified radical mastectomy: Post excisional biopsy status with residual infiltrating ductal carcinoma 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade II (tubule formation:3, nuclear pleomorphism:3, mitosis:1) 3. Occasional lymphatic permeation 4. No intraductal component within the residual mass 5. Extensive ductal carcinoma in situ(comedo carcinoma) in adjacent parenchyma 6. ER(-), PR(weak +), CerB2(+) Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary (0/1), level II (0/0) : (0/1): free of tumor</p>	radical mastectomy	2	1	T1cN0M0	ER: - PR: weakly + C erb B3:+

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
23	D	9, 10	f	59	breast: papillary carcinoma breast: invasive ductal carcinoma	Breast, right, modified radical mastectomy: Invasive micropapillary carcinoma with extensive ductal carcinoma in situ (micropapillary type) in adjacent non-tumorous parenchyma and with extensive lymphatic permeation Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph nodes, axillary (13/20): Metastatic micropapillary carcinoma in 13 out of 20 nodes showing perinodal tumor extension and fixation to each other	radical mastectomy			T2N3aM0	ER: + PR:- C erb B2:+
24	D	11, 12	f	37	breast: phyllodes tumor breast: cystosarcoma phyllodes malignant	Breast, right, excision: Phyllodes tumor, malignant with involvement of margins	excision				

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
25	E	1, 2	f	69	breast: infiltrating ductal carcinoma	<p>Breast, left, simple mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade 2 (moderately differentiated) 2. Modified Bloom-Richardson's histological grade II (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 2) 3. Intraductal component: about 15% 4. Ductal carcinoma in situ (occasionally with papillary feature) in adjacent parenchyme 5. No lymphatic permeation 6. ER(+), PR(+), C erb B2(-)</p> <p>Breast, left, modified radical mastectomy: Postexcisional biopsy state with focal residual ductal carcinoma in situ Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary (0/12) : (0/12): free of tumor</p>	simple mastectomy	2	2	T2N1aM0	ER: + PR: + C erb B4: -
26	E	3, 4	f	44	breast: infiltrating ductal carcinoma breast: mucinous carcinoma	<p>Breast, right, frozen biopsy: A. Infiltrating ductal carcinoma (1.8x1.5 cm); - Black's nuclear grade 2 (moderately differentiated) modified Bloom-Richardson's histological grade II (tubule formation: 2, mitosis: 3, nuclear pleomorphism: 2) - Intraductal component: about 10% - No vascular permeation B. Mucinous carcinoma (1.5x1.3 cm) focally showing signet ring cell feature with prominent lymphatic permeation and</p>	frozen biopsy	2	2	T1cN0M0	ER: + PR: focal weak + C erb B2: -
27	E	5, 6	f	45	breast: infiltrating ductal carcinoma	<p>Breast, frozen biopsy: Infiltrating ductal carcinoma (nuclear grade 2, Bloom and Richardson's histologic grade II)</p>	frozen biopsy	2	2	T2N3M0	ER, PR: +

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
28	E	7, 8	f	48	breast: infiltrating ductal carcinoma	Breast, left partial mastectomy: Infiltrating ductal carcinoma with prominent tubular differentiation, 1. Black's nuclear grade 2 (moderately differentiated) 2. Modified Bloom-Richardson's histological grade II (tubule formation: 1, nuclear pleomorphism: 2, mitosis: 3) 3. EIC(extensive intraductal component): positive 4. No lymphatic permeation Resection margin, anterior: free of tumor	partial mastectomy	2	2	T1bN0M0	ER: + PR:- C erb B2:+
29	E	9, 10	f	46	breast: phyllodes tumor	Breast: Frozen diagnosis, phyllodes tumor Final diagnosis, phyllodes tumor, low grade malignancy Note: Mitotic rate is 7-8/10 HPF. But invasion of margin and overt sarcomatous area are not noted	frozen biopsy				
30	E	11, 12	f	45	breast: cystosarcoma phyllodes breast: phyllodes tumor breast: malignant tumor	Breast, left, excision: Cystosarcoma phyllodes, malignant, margins involved by neoplasm	excision				
31	F	1, 2	f	68	breast: infiltrating ductal carcinoma	Breast, left, lumpectomy: Infiltrating ductal carcinoma, nuclear grade 2, Histologic grade II without intraductal component	lumpectomy	2	2	T2N0M0	ER, PR:+ C erb B2:-
32	F	3, 4	f	56	breast: infiltrating ductal carcinoma	Breast, right, mastectomy: Infiltrating ductal carcinoma, nuclear grade 2, Histologic grade II, without intraductal component	mastectomy	2	2	T2N0M0	ER, PR: + C erb B2:focal positive

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
33	F	5, 6	f	40	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade 2 (moderately differentiated) 2. Modified Bloom-Richardson's histological grade II (tubule formation: 3, mitosis: 1, nuclear pleomorphism: 2) 3. No lymphatic permeation Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph nodes, axillary (5/27), level II (0/2), level III (0/3) : (5/32): tumor metastasis in 5 out of 32 nodes (pN1bii)	radical mastectomy	2	2	T3N2aM0	ER, PR: + C erb B2: - E cadherin:+
34	F	7, 8	f	67	breast: infiltrating ductal carcinoma	Breast, frozen biopsy: Infiltrating ductal carcinoma histologic grade 2 by Nottingham modification of Bloom-Richardson grade (nuclear pleomorphism 2, tubule formation 2 (10-75%), mitotic count	frozen biopsy			T1cN2aM0	ER, PR: +
35	F	9, 10	f	59	breast: infiltrating lobular carcinoma	Breast, right, modified radical mastectomy: In situ and infiltrating lobular carcinoma (tumor size 2.5 cm) with focal extension to one of the lactiferous ducts of nipple without epidermal involvement Level I axillary (0/10), level II and III (0/3) and interpectoral lymph nodes (0/1) are free of neoplastic involvement	radical mastectomy			T2N0M0	
36	F	11, 12	f	82	breast: infiltrating lobular carcinoma	Breast, frozen biopsy: Infiltrating lobular carcinoma with LCIS	frozen biopsy			T1cN0M0	ER: + PR:- C erb B2:+
37	G	1, 2	f	37	breast: infiltrating ductal carcinoma	Breast, right, lumpectomy: 1. Infiltrating ductal carcinoma, nuclear grade 1 (poorly differentiated), Histologic grade III with minimal intraductal component (about 5%) 2. Focal lymphovascular permeation of carcinoma Resection margins, medial and superior: Involvement of ductal carcinoma in situ Resection margin, inferior and lateral: free of tumor	lumpectomy	3	1	T1cN3aM0	ER, PR: + C erb B2: -

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
38	G	3, 4	f	38	breast: infiltrating ductal carcinoma breast: comedocarcinoma lymph node : metastatic adenocarcinoma	Breast, right, total mastectomy: Infiltrating ductal carcinoma 1. Size: 2x1.8x1.3 cm 2. Black's nuclear grade 1 (poorly differentiated) 3. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 4. Intraductal component within the mass of infiltrating ductal carcinoma: less than 5% 5. Extensive ductal carcinoma in situ (comedocarcinoma) in adjacent parenchyme with scattered foci of microinvasion (separate from the main mass) 6. Occasional lymphatic permeation Nipple and areola: free of tumor Underlying fascia: free of tumor Lymph nodes, axillary (2/8), level Metastatic adenocarcinoma in 2 out of 8 nodes (size of metastatic tumor: 1.5 mm) (pN1a: only micrometastasis)	total mastectomy	3	1	T1cN1aM0	ER, PR:- C erb B2: +
39	G	5, 6	f	38	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma, nuclear grade 1 (poorly differentiated), Histologic grade III with extensive intraductal component (about 35%). Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Lymph nodes, axillary (0/31): free of tumor Soft tissue, separately submitted as level II lymph node: free of tumor	radical mastectomy	3	1	T2N0M0	ER, PR: + C erb B2: -

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
40	G	7, 8	f	49	breast: infiltrating ductal carcinoma	Breast, left, modified radical mastectomy: Infiltrating ductal carcinoma, 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 3. Extensive intraductal component (EIC) positive 4. No lymphatic permeation Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary (24/32), level 2 (0/1), level 3 (1/2) : (25/35): Metastatic adenocarcinoma in 25 out of 35 nodes (pN1biii: extranodal extension and metastasis < 2 cm)	radical mastectomy	3	1	T2N3aM0	ER, PR: + C erb B2: +
41	G	9, 10	f	56	breast: infiltrating lobular carcinoma	Breast, left, lumpectomy: Infiltrating lobular carcinoma (size 1.3x1.0 cm) Resection margins, inferior and lateral: free of tumor	lumpectomy			T1cN1aM0	ER, PR: + C erb B2:- E cadherin:-
42	G	11, 12	f	45	breast: infiltrating lobular carcinoma	Breast, right, modified radical mastectomy: Infiltrating lobular carcinoma with occasional lymphatic permeation Nipple and areola: free of tumor Overlying skin: free of tumor Underlying fascia: free of tumor Regional lymph node, axillary level I (1/7), level II (3/3) : (4/10): metastatic lobular carcinoma in 4 out of 10 nodes (the largest metastatic tumor measures 8x3 mm in size at level I)	radical mastectomy			T1cN2aM0	
43	H	1, 2	f	36	breast: infiltrating ductal carcinoma	Breast, right, lumpectomy: Infiltrating ductal carcinoma, nuclear grade 2, histologic grade III with minimal intraductal component (less than 5%) Resection margins, superior, inferior, and medial: free of tumor	lumpectomy	3	2	T1cN1aM0	ER, PR: + C erb B2:-

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
44	H	3, 4	f	39	breast: infiltrating ductal carcinoma	Breast, right, mastectomy: Infiltrating ductal carcinoma, 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 3. No intraductal component 4. No lymphatic permeation 5. With clean surgical margins	mastectomy	3	1	T2N0M0	ER, PR: - C erb B2:-
45	H	5, 6	f	66	breast: infiltrating ductal carcinoma breast: apocrine carcinoma	Breast, left, mastectomy: Infiltrating ductal carcinoma 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 2) 3. With prominent apocrine differentiation (so called apocrine carcinoma) 4. Intraductal component < 5% 5. Ductal carcinoma in situ (with apocrine feature) in adjacent parenchyme 6. No lymphatic permeation 7. Marked peritumoral lymphoplasmacytic infiltration 8. Result of immunohistochemistry: ER(-), PR(-), C erb B2(+), P53(+), CEA(+), BRST-2(+) Nipple and areola: free of tumor Overlying skin: free of tumor Regional lymph node, axillary (2/18): tumor metastasis in 2 out of 18 nodes Underlying fascia: free of tumor	mastectomy	3	1	T2N1aM0	ER, PR:- C erb B2:+ P53:+ CEA:+ BRST-2: +
46	H	7, 8	f	45	breast: infiltrating ductal carcinoma	Breast, frozen biopsy: Infiltrating ductal carcinoma with 1. Bloom and Richardson's grade III 2. Intraductal component over 25% 3. Marked lobular cancerization	frozen biopsy			T2N0M0	

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
47	I	1, 2	f	68	breast: infiltrating ductal carcinoma	Breast: Infiltrating ductal cell carcinoma, grade III, with intraductal component: less than 10% Resection margin, inferior, free of tumor Resection margin, superior, free of tumor Resection margin, medial, free of tumor	frozen biopsy			T2N0M0	
48	I	3, 4	f	69	breast: papillary carcinoma	Breast, right, radical mastectomy: Invasive papillary carcinoma, moderately differentiated with 1) histologic grade II/III 2) nuclear grade II/III 3) tumor size: 11 cm 4) tumor necrosis: moderate 5) calcification: minimal 6) Invasion of dermis but not epidermis 7) Involvement of lactiferous duct 8) dermal lymphatic invasion 9) focal vascular invasion 10) attachment but not infiltration to the pectoralis major muscle Resection margin: free of tumor Lymph node, axillary: Microscopic metastatic in two out of 46 (level I (0/9), level II (0/2), axillary (2/35))	radical mastectomy	II/III	II/III	T4an1mM0	
49	I	5, 6	f	42	breast: invasive ductal carcinoma breast: papillary carcinoma	Breast mass (#2), right, excisional biopsy (FS): Invasive ductal (papillary) carcinoma, modified Bloom-Richardson grade 2, tumor size 2.5 cm	excisional biopsy	2		T2N0M0	ER, PR: + C-erb B2: -

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
50	I	7, 8	f	44	breast: papillomatosis breast: papillary carcinoma breast: ductal carcinoma in-situ	Breast, right, lumpectomy: 1. Multifocal non-invasive (intraductal) papillary carcinoma with foci of atypical papillomatosis 2. Non-papillary ductal carcinoma in situ, multifocal, with extensive lobular cancerization Resection margin, medial: involvement of tumor Resection margins, inferior and lateral: presence of atypical ductal hyperplasia Resection margin, superior: free of tumor	lumpectomy			T2N0M0	
51	H	9, 10*	f	41	breast: infiltrating ductal carcinoma	Breast, lumpectomy: Infiltrating ductal carcinoma, nuclear grade 3 (well differentiated) Histologic grade I with extensive intraductal component (about 30-40%) Resection margins, all circumference: free of tumor Non-neoplastic, from B7, 8	lumpectomy	1	3	T1bN0M0	ER, PR: + C erb B2:-
52	H	11, 12*	f	46	breast: infiltrating ductal carcinoma	Breast, right, lumpectomy: 1. Infiltrating ductal carcinoma, nuclear grade 2, histologic grade I with minimal intraductal component (less than 5%) 2. Intraductal papillomatosis Resection margins, superior, inferior and lateral: free of tumor Resection margins, labelled as "new margin (medial)": 1. Free of carcinoma 2. Focal presence of atypical ductal hyperplasia in superomedial side Non-neoplastic, from A 2, 4	lumpectomy	1	2	T1cN0M0	ER, PR: + C erb B2: -

A202 (I): Breast cancer tissues

No.	Coordinate		Sex	Age	Key Word	Histological Diagnosis	Surgery	HG	NG	TNM Stage	Immunohistochemical stain results:
53	I	9, 10*	f	38	breast: infiltrating ductal carcinoma breast: comedocarcinoma lymph node : metastatic adenocarcinoma	Breast, right, total mastectomy: Infiltrating ductal carcinoma 1. Size: 2x1.8x1.3 cm 2. Black's nuclear grade 1 (poorly differentiated) 3. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 4. Intraductal component within the mass of infiltrating ductal carcinoma: less than 5% 5. Extensive ductal carcinoma in situ (comedocarcinoma) in adjacent parenchyme with scattered foci of microinvasion (separate from the main mass) 6. Occasional lymphatic permeation Nipple and areola: free of tumor Underlying fascia: free of tumor Lymph nodes, axillary (2/8), level metastatic adenocarcinoma in 2 out of 8 nodes (size of metastatic tumor: 1.5 mm) (pN1a: only micrometastasis) Non-neoplastic, from G3, 4	total mastectomy	3	1	T1cN1aM0	ER, PR: - C erb B2: +
54	I	11, 12*	f	39	breast: infiltrating ductal carcinoma	Breast, right, mastectomy: Infiltrating ductal carcinoma, 1. Black's nuclear grade 1 (poorly differentiated) 2. Modified Bloom-Richardson's histological grade III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3) 3. No intraductal component 4. No lymphatic permeation 5. With clean surgical margins Non-neoplastic, from H3, 4	mastectomy	3	1	T2N0M0	ER, PR: - C erb B2:-

HG : Modified Bloom-Richardson's histological grade

NG: Black's nuclear grade

*: Non-neoplastic