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For research use only

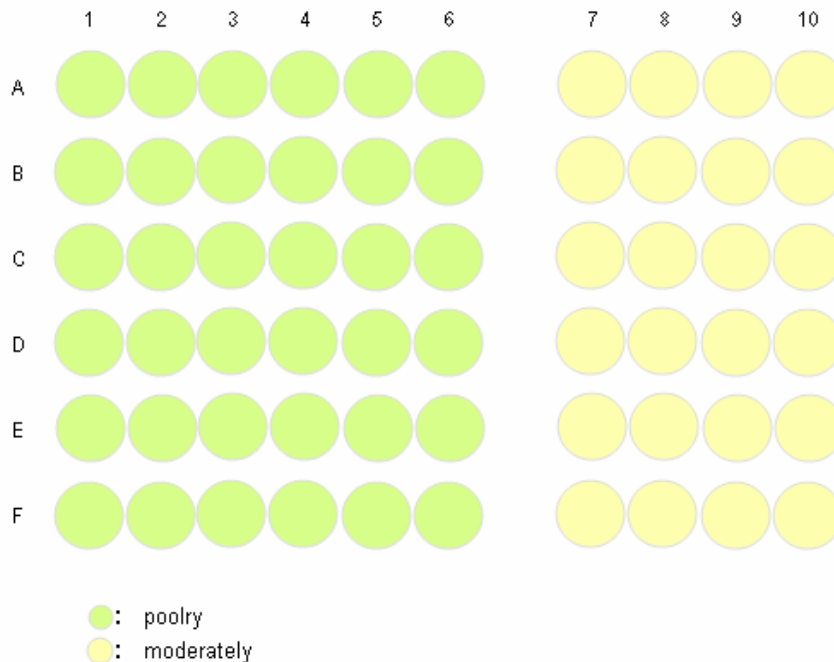
**Specifications:**

- No. of cases: 30
- Tissue type: Breast cancer tissues
- No. of spots: 2 spots from each cancer case (60 spots)
- Total spots: 60
- Corresponding normal tissues with cancers:
- Diameter: 1.0 mm

**Documents:**

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

**Layout:**



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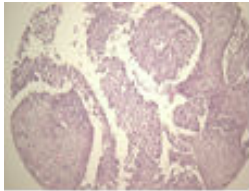
**Summary of tissue spots**

No	Coordinate		Sex	Age	Key Word
1	A	1,2	f	64	invasive ductal carcinoma
2	A	3,4	f	68	invasive ductal carcinoma
3	A	5,6	f	50	invasive ductal carcinoma
4	A	7,8	f	74	invasive ductal carcinoma
5	A	9,10	f	48	invasive ductal carcinoma
6	B	1,2	f	44	invasive ductal carcinoma
7	B	3,4	f	67	invasive ductal carcinoma
8	B	5,6	f	42	invasive ductal carcinoma
9	B	7,8	f	43	invasive ductal carcinoma
10	B	9,10	f	45	invasive ductal carcinoma
11	C	1,2	f	43	invasive ductal carcinoma
12	C	3,4	f	30	invasive ductal carcinoma
13	C	5,6	f	53	invasive ductal carcinoma
14	C	7,8	f	50	invasive ductal carcinoma
15	C	9,10	f	38	invasive ductal carcinoma
16	D	1,2	f	54	invasive ductal carcinoma
17	D	3,4	f	54	invasive ductal carcinoma
18	D	5,6	f	46	invasive ductal carcinoma
19	D	7,8	f	26	invasive ductal carcinoma
20	D	9,10	f	68	invasive ductal carcinoma
21	E	1,2	f	65	invasive ductal carcinoma
22	E	3,4	f	48	invasive ductal carcinoma
23	E	5,6	f	44	invasive ductal carcinoma
24	E	7,8	f	65	invasive ductal carcinoma
25	E	9,10	f	68	invasive ductal carcinoma
26	F	1,2	f	64	invasive ductal carcinoma
27	F	3,4	f	67	invasive ductal carcinoma
28	F	5,6	f	56	invasive ductal carcinoma
29	F	7,8	f	38	invasive ductal carcinoma
30	F	9,10	f	48	invasive ductal carcinoma

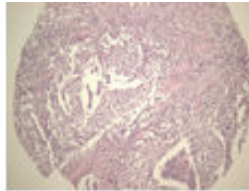
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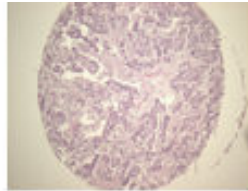
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Hematoxylin and Eosin staining



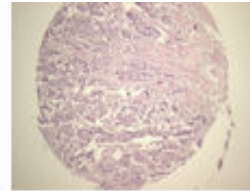
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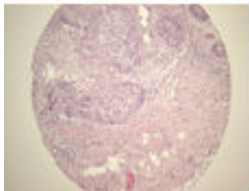
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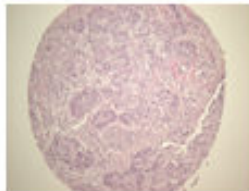
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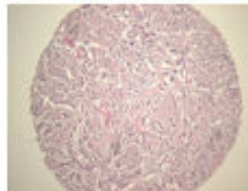
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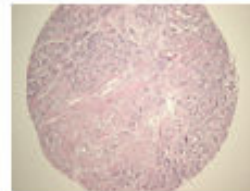
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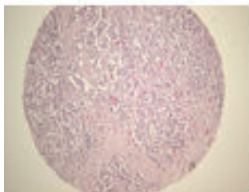
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A7



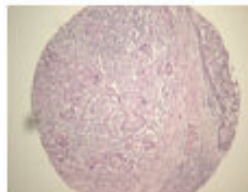
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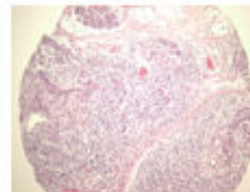
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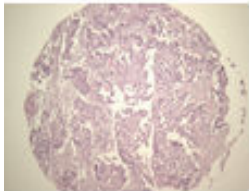
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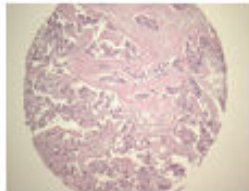
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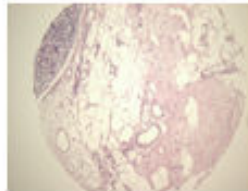
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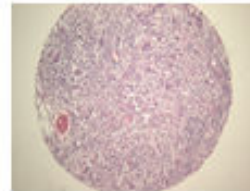
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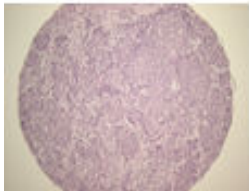
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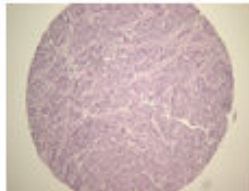
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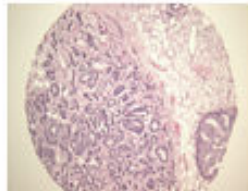
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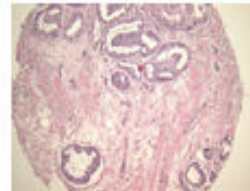
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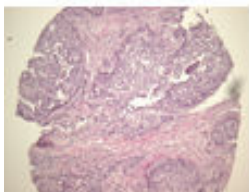
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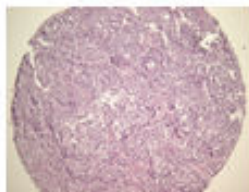
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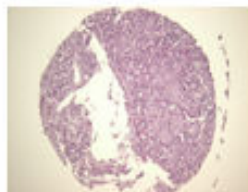
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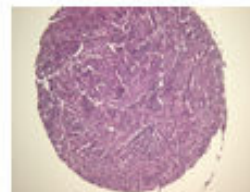
C1



C2



C3

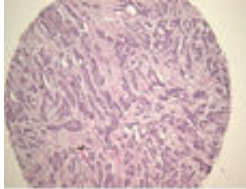


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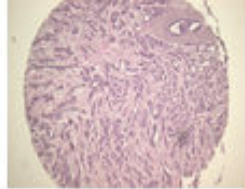
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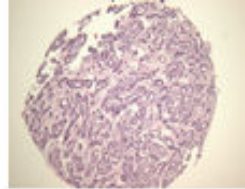
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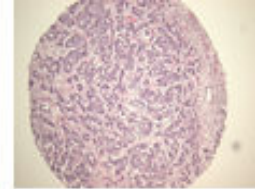
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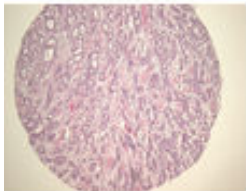
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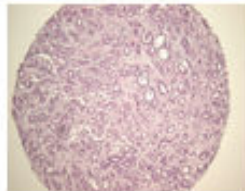
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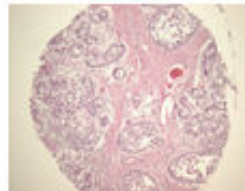
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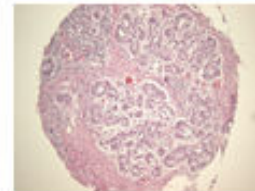
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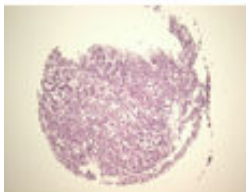
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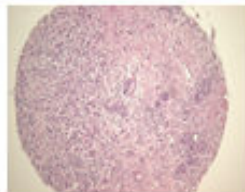
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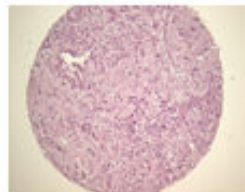
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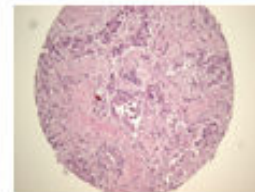
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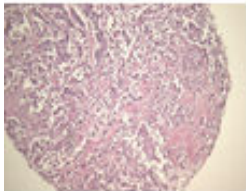
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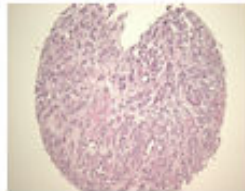
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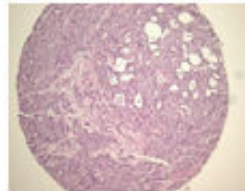
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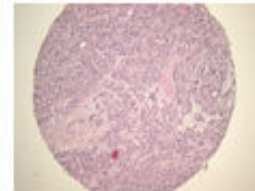
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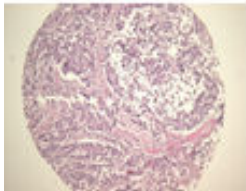
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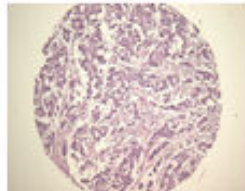
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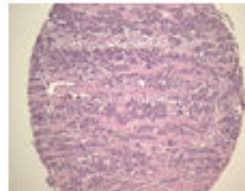
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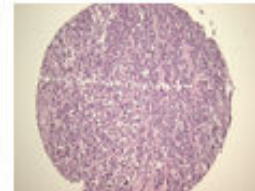
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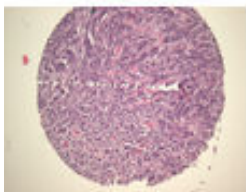
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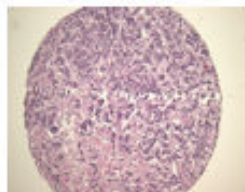
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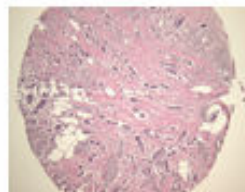
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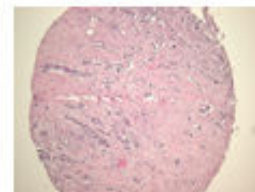
E5



E6



E7

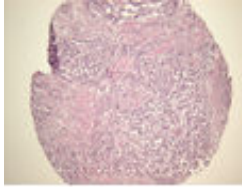


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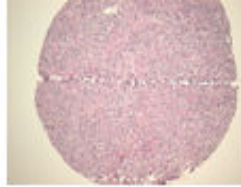
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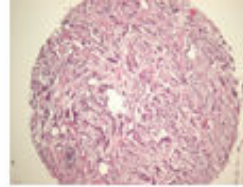
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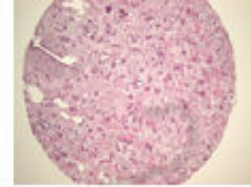
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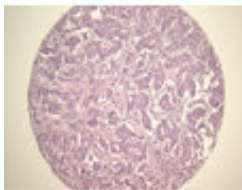
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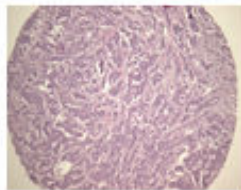
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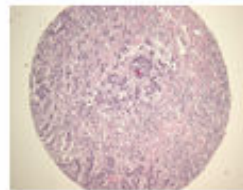
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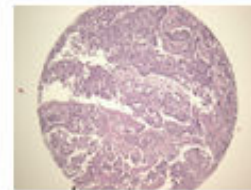
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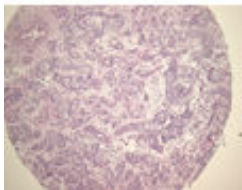
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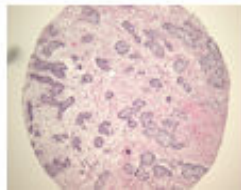
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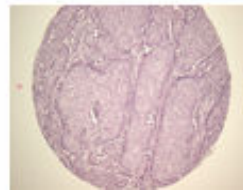
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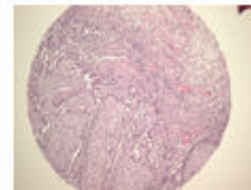
**F7**



**F8**



**F9**



**F10**

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
1	A	1,2	f	64	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy: postincisional biopsy with residual invasive ductal carcinoma</p> <ol style="list-style-type: none"> <li>1) size of the residual tumor: 2.6x1.9cm</li> <li>2) site: RUL quadrant, 10 o'clock area, 3cm away from the nipple</li> <li>3) Black's nuclear grade: 1 (poorly differentiated)</li> <li>4) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)</li> <li>5) intraductal component: EIC: present</li> <li>6) focal squamoid differentiation</li> <li>7) vascular invasion: present</li> <li>8) perineural invasion: absent</li> <li>9) microcalcification: present in DCIS</li> <li>10) immunohistochemistry: ER(-), PR(+), C erb B2(+: 3+/3+)</li> <li>11) nipple and areola: free of tumor</li> <li>12) overlying skin: free of tumor.</li> <li>13) underlying fascia: free of tumor.</li> <li>14) lymph node, sentinel(1/2), axillary(1/13):(2/15): tumor metastasis in 2 out of 15 nodes.</li> </ol>
2	A	3,4	f	68	invasive ductal carcinoma	<p>Breast, right, partial mastectomy: invasive ductal carcinoma</p> <ol style="list-style-type: none"> <li>1) size: 2.2x1.3cm</li> <li>2) Black's nuclear grade: 1 (poorly differentiated)</li> <li>3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)</li> <li>4) intraductal component: 10%</li> <li>5) resection margins: negative</li> <li>6) vascular invasion: absent</li> <li>7) perineural invasion: absent</li> <li>8) microcalcification: present in invasive cancer, in ductal carcinoma in situ</li> <li>9) ER(+), PR(+), C erb B2(weak+:2+/3+)</li> <li>10) underlying fascia: free of tumor</li> <li>11) lymph node, sentinel(0/2): free of tumor.</li> </ol>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
3	A	5,6	f	50	invasive ductal carcinoma	<p>Breast, left, partial mastectomy:  invasive ductal carcinoma  1) size: 0.8x0.6cm  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) EIC: present  5) resection margins: negative  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) immunohistochemistry: ER(+), PR(+), C erb B2(+: 3+/3+)  10) background ductal carcinoma in situ  – size: 1.5x1.0cm  11) lymph node, sentinel(0/1): free of tumor.</p>
4	A	7,8	f	74	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 2x1.8x1.5cm  2) site: RIL quadrant, 4cm away from the nipple  3) Black's nuclear grade: 2 (moderately differentiated)  4) modified Bloom-Richardson's histological grade: II (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 1)  5) intraductal component: 5%  6) resection margins: negative  7) vascular invasion: absent  8) ER(+), PR(+), C erb B2(-)  9) nipple and areola: free from tumor extension  10) overlying skin: extension of the tumor  11) underlying fascia: free from tumor extension  12) lymph node, axillary(0/17): free from tumor extension.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
5	A	9,10	f	48	invasive ductal carcinoma	Breast, modified radical mastectomy: invasive ductal carcinoma 1) size: 2.5x2.3cm 2) site: RUO quadrant 3) Black's nuclear grade: 2 (moderately differentiated) 4) modified Bloom–Richardson's histological grade: II (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 2) 5) intraductal component 10% 6) resection margins: negative 7) vascular invasion: present 8) perineural invasion: absent 9) microcalcification: present in invasive cancer and in ductal carcinoma in situ 10) ER(+++), PR(+++), C-erb B2(+++). 11) nipple and areola: free of tumor. 12) overlying skin: free of tumor. 13) underlying fascia: free of tumor. 14) lymph node, sentinel, axillary(1/17): tumor metastasis in 1 out of 17 nodes (with pericapsular tumor spread).
6	B	1,2	f	44	invasive ductal carcinoma	Breast, right, partial mastectomy: invasive ductal carcinoma 1) size: 1.0x0.8cm 2) Black's nuclear grade: 1 (poorly differentiated) 3) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 2) 4) EIC: present 5) resection margins: free of tumor 6) vascular invasion: absent 7) perineural invasion: absent 8) microcalcification: absent 9) immunohistochemistry: ER(-), PR(-), C erb B2(+: 3+/3+) 10) lymph node, sentinel(0/1): free of tumor.

No	Coordinate		Sex	Age	Key Word	Histological Diagnosis
7	B	3,4	f	67	invasive ductal carcinoma	<p>Breast, left, modified radical mastectomy:  invasive ductal carcinoma  1) size: 2.8x2.5cm  2) site: superior portion  3) Black's nuclear grade: 1 (poorly differentiated)  4) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 2)  5) intraductal component: 20%  6) resection margins: negative  7) vascular invasion: absent  8) perineural invasion: absent  9) microcalcification: present in ductal carcinoma in situ  10) associated benign changes: post-biopsy status  11) nipple and areola: free of tumor  12) overlying skin: free of tumor  13) underlying fascia: free of tumor  14) lymph node, axillary(0/3): free of tumor  15) ER(-), PR(++/+++), C-erb B2(+++/+++).</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
8	B 5,6	f	42	invasive ductal carcinoma	<p>Breast, left, partial mastectomy:  invasive ductal carcinoma  1) size: 2.2x1.7cm  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) EIC: present  5) resection margins: negative, distance to closest (relevant) margin: 2mm, relevant margin is superior  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present in invasive cancer, in ductal carcinoma in situ, in associated with benign epithelium, in stroma  9) ER(-), PR(+), C erb B2(-:0/3+)  10) ductal carcinoma in situ in the background  – nuclear grade: high  – histological grade: high  – necrosis: present (comedo)  – architectural types: solid  – extent of DCIS: 9x6cm  – microinvasion: absent (multifocal)  11) lymph node, sentinel(0/2): free of tumor.</p>
9	B 7,8	f	43	invasive ductal carcinoma	<p>Breast, left, partial mastectomy:  invasive ductal carcinoma  1) size: 2.2x2.0cm  2) Black's nuclear grade: 2(moderately differentiated)  3) modified Bloom–Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 2)  4) intraductal component: absent  5) resection margins: negative, distance to closest(relevant) margin: 5mm, relevant margin is lateral  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) immunohistochemistry: ER(+), PR(+), C erb B2(-: 1+/3+)  10) overlying skin: free of tumor  11) underlying fascia: free of tumor  12) lymph node, sentinel: free of tumor.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
10	B	9,10	f	45	invasive ductal carcinoma	<p>Breast, left, modified radical mastectomy:  invasive ductal carcinoma  1) size: 1.8cm  2) site: 3rd quadrant, 2cm away from the nipple  3) Black's nuclear grade: 2(moderately differentiated)  4) modified Bloom–Richardson's histological grade: I (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 1)  5) intraductal component: 60%  6) resection margins: negative, distance to closest(relevant) margin: 5mm, relevant margin is posterior  7) vascular invasion: absent  8) perineural invasion: absent  9) microcalcification: present, in DCIS  10) result of immunohistochemical stains: ER(+), PR(+), C erb B2(weakly positive(2+/3+), see note.  11) nipple and areola: free of tumor  12) overlying skin: free of tumor  13) underlying fascia: free of tumor  14) lymph node, axillary(0/2): free of tumor.</p>
11	C	1,2	f	43	invasive ductal carcinoma	<p>Breast, left, partial mastectomy:  invasive ductal carcinoma  1) size: 3x3cm  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) EIC: present  5) resection margins: positive  relevant margin are superior, lateral and medial  (radical mastectomy was done afterwards)  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) immunohistochemistry: ER(-), PR(-), C erb B2(-: 0/3+)  10) lymph node, sentinel(0/4): free of tumor.</p>

**A202VI: Breast cancer tissues**

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
12	C	3,4	f	30	invasive ductal carcinoma	<p>Breast, site not specified, partial mastectomy:  invasive ductal carcinoma  1) size: 2.4x2.2cm  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) EIC: present  5) resection margins: negative  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present in invasive cancer, in association with benign epithelium  9) immunohistochemistry: ER(+), PR(+), C erb B2(+:3+/3+)  10) marked lymphocytic infiltration  11) overlying skin: free of tumor.  12) lymph node, sentinel(0/5): free of tumor.</p>
13	C	5,6	f	53	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 2.5x2x1.5cm  2) site: RIL quadrant, 4 o'clock area, 2cm away from the nipple  3) Black's nuclear grade: 1 (poorly differentiated)  4) modified Bloom–Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 3, mitosis: 2)  5) intraductal component: less than 5%  6) resection margins: negative, Distance to closest(relevant) margin: 13mm  7) vascular invasion: present  8) perineural invasion: absent  9) microcalcification: absent  10) immunohistochemistry: ER(+), PR(+), C erb B2(-)  11) nipple and areola: fibrocystic change  12) overlying skin: free from tumor extension  13) underlying fascia: free from tumor extension  14) lymph node: not identified in the axillary fat pad.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
14	C	7,8	f	50	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 4.5x2cm  2) site: upper portion, 12 o'clock area, 2cm away from the nipple  3) Black's nuclear grade: 2(moderately differentiated)  4) modified Bloom–Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 2)  5) intraductal component: 90%  6) resection margins: negative  7) vascular invasion: absent  8) perineural invasion: absent  9) microcalcification: present, in DCIS  10) ER(++/+++), PR(+++/+++), C–erb B2(–).  11) nipple and areola: free of tumor.  12) overlying skin: free of tumor.  13) underlying fascia: free of tumor.  14) lymph node, axillary(0/0): free of tumor.</p>
15	C	9,10	f	38	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma, multifocal  1) size: 4.3x1.6cm in the largest one  2) Black's nuclear grade: 2(moderately differentiated)  3) modified Bloom–Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 3)  4) intraductal component: 0%  5) vascular invasion: present  6) perineural invasion: absent  7) microcalcification: present in invasive cancer  8) immunohistochemistry: ER(+), PR(+), C erb B2(–:0/3+)  9) nipple and areola: free of tumor.  10) overlying skin: involvement by invasive carcinoma.  11) underlying fascia: free of tumor.  12) lymph node, axillary(0/0), supraclavicular(3/4), level III(0/0): (3/4): tumor metastasis in 3 out of 4 lymph nodes with extensive perinodal tumor spread.  Note: The fibrofatty tissue stated as level III lymph nodes also shows tumor deposits.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
16	D	1,2	f	54	invasive ductal carcinoma	<p>Breast, left, modified radical mastectomy:</p> <p>invasive ductal carcinoma</p> <ol style="list-style-type: none"> <li>1) size: 1.5x1.3cm and 0.5x0.3cm(each separated by 1.5cm)</li> <li>2) Black's nuclear grade: 1(poorly differentiated)</li> <li>3) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)</li> <li>4) EIC: present</li> <li>5) vascular invasion: present</li> <li>6) perineural invasion: absent</li> <li>7) microcalcification: absent</li> <li>8) immunohistochemistry: ER(-), PR(-), C erb B2(-: 0/3+)</li> <li>9) ductal carcinoma in situ in the background <ul style="list-style-type: none"> <li>- nuclear grade: high</li> <li>- histological grade: intermediate</li> <li>- necrosis: absent</li> <li>- architectural types: cribriform, solid</li> <li>- extent of DCIS: 4x3cm</li> <li>- calcification: absent</li> </ul> </li> <li>10) associated benign changes: fibrocystic change with florid ductal epithelial hyperplasia</li> <li>11) nipple and areola: free of tumor.</li> <li>12) overlying skin: free of tumor.</li> <li>13) underlying fascia: free of tumor.</li> <li>14) lymph node, axillary(2/35): tumor metastasis in 2 out of 35 nodes (without pericapsular tumor spread)(size of the largest metastatic tumor: 1.5x1.0mm).</li> </ol>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
17	D 3,4	f	54	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 4.5x2.3cm  2) site: RUO quadrant  3) Black's nuclear grade: 1 (poorly differentiated)  4) modified Bloom–Richardson's histological grade: II (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 1)  5) intraductal component: 20%  6) resection margins: negative  7) vascular invasion: nresent  8) perineural invasion: absent  9) microcalcification: Present in ductal carcinoma in situ  10) ER(-), PR(++/+++), C-erb B2(+++/+++)  11) nipple and areola: free of tumor  12) overlying skin: free of tumor  13) underlying fascia: free of tumor  14) lymph node, axillar, level III(2/2), supraclavicular(15/22), axillar(23/25): Tumor metastasis in 40 out of 49 lymph nodes (pericapsular tumor spread).</p>
18	D 5,6	f	46	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 1.8cm  2) site: RU quadrant, 9 o'clock area  3) Black's nuclear grade: 1 (poorly differentiated)  4) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  5) intraductal component: 5%  6) resection margins: negative, distance to closest margin: 10mm, relevant margin is posterior  7) vascular invasion: absent  8) perineural invasion: absent  9) microcalcification: absent  10) nipple and areola: free of tumor  11) overlying skin: free of tumor  12) underlying fascia: free of tumor  13) lymph node, axillary(0/21): free of tumor.  Note: Tumor cells showed marked pleomorphism and multinucleated giant cells probably associated with chemotherapy. But, there is no evidence of tumor cell necrosis.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
19	D 7,8	f	26	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 4.5x3x2cm  2) site: central and upper outer quadrant  3) Black's nuclear grade: 2(moderately differentiated)  4) modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  5) no intraductal component  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: absent  9) immunohistochemistry: ER(+), PR(+), C erb B2(weak +: 2+/3+)  10) nipple and areola: involved by the tumor  11) overlying skin: involved by the tumor  12) underlying fascia: free of tumor  13) lymph node, sentinel(1/1), axillary(2/14), separately submitted axillary(0/0): (3/15): tumor metastasis in 3 out of 15 nodes with pericapsular tumor spread)(size of the largest metastatic tumor: 1.0x0.9cm)(See F2007–854 for the report of sentinel lymph node biopsy).</p>
20	D 9,10	f	68	invasive ductal carcinoma	<p>Breast, right, partial mastectomy:  invasive ductal carcinoma  1) size: 2.9x2.0cm  2) Black's nuclear grade: 2 (moderately differentiated)  3) modified Bloom–Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 2)  4) intraductal component: 30%  5) resection margins: negative, distance to closest margin 1mm, relevant margin is medial  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present in ductal carcinoma in situ  9) immunohistochemistry: ER(+), PR(+), C erb B2(-:1+/3+)  10) lymph node, sentinel(1/1): tumor metastasis in 1 out of 1 nodes (without pericapsular tumor spread).</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis	
21	E	1,2	f	65	invasive ductal carcinoma	<p>Breast, left, modified radical mastectomy:</p> <p>invasive ductal carcinoma</p> <ol style="list-style-type: none"> <li>1) size: 2.7x2.2cm</li> <li>2) site: LUO quadrant, 2 o'clock area, 1.5cm away from the nipple</li> <li>3) Black's nuclear grade: 1(poorly differentiated)</li> <li>4) modified Bloom-Richardson's histological grade: III(tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)</li> <li>5) intraductal component: 5%</li> <li>6) resection margins: negative</li> <li>7) Vascular invasion: present</li> <li>8) perineural invasion: absent</li> <li>9) microcalcification: present, in invasive cancer, In DCIS, in stroma</li> <li>10) ER(-), PR(-), C erb B2(+: 3+/3+)</li> <li>11) associated ductal carcinoma in situ <ul style="list-style-type: none"> <li>- nuclear grade: high</li> <li>- histological grade: high</li> <li>- necrosis: present(comedo)</li> <li>- architectural types: solid</li> <li>- calcification: present in DCIS</li> </ul> </li> <li>12) nipple and areola: free of tumor</li> <li>13) overlying skin: free of tumor</li> <li>14) underlying fascia: free of tumor</li> <li>15) lymph node, axillary(2/23): tumor metastasis in 2 out of 23 nodes (with focal pericapsular tumor spread).</li> </ol>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
22	E 3,4	f	48	invasive ductal carcinoma	<p>Breast, right, partial mastectomy:  invasive ductal carcinoma  1) size: 2.1x2cm  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: 0%  5) resection margins: negative  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present, in association with benign epithelium  9) ER(+), PR(+), C erb B2(-:1+/3+)  10) associated benign changes: fibrocystic change  11) overlying skin: free of tumor  2) lymph node, sentinel(1/2) and axillary(0/5):(1/7): tumor metastasis in 1 out of 7 nodes.</p>
23	E 5,6	f	44	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 4.3x4cm  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: more than 50%  5) vascular invasion: present  6) perineural invasion: absent  7) microcalcification: present in invasive cancer  8) associated benign changes: sclerosing adenosis, florid ductal hyperplasia, papillomatosis  9) nipple and areola: free of tumor  10) overlying skin: free of tumor  11) underlying fascia: presence of ductal carcinoma in situ  12) lymph node, axillary(29/33), level III(1/1): tumor metastasis in 29 out of 33 nodes with pericapsular tumor spread  13) ER(+), PR(+), C-erb B2(-: 0/3+).</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
24	E 7,8	f	65	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 1.7x1.0cm  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) intraductal component: about 5%  5) resection margins: negative  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: present, In association with benign epithelium  9) immunohistochemistry: ER(+), PR(+), C erb B2(-: 0+/3+)  10) nipple and areola: free of tumor  11) overlying skin: free of tumor  12) underlying fascia: free of tumor  13) lymph node, separately submitted axillary(0/15): free of tumor.</p>
25	E 9,10	f	68	invasive ductal carcinoma	<p>Breast, right, modified radical mastectomy:  invasive ductal carcinoma  1) size: 1.9x1.6cm  2. site: RUO quadrant, 0.7cm away from the nipple  3. Black's nuclear grade: 2(moderately differentiated)  4. modified Bloom–Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  5. intraductal component: 0%  6. resection margins: negative  7. vascular invasion: present  8. perineural invasion: absent  9. microcalcification: absent  10) ER(+++/+++), PR(+/+++), C-erb B2(-)  11) nipple and areola: free of tumor  12) overlying skin: free of tumor, but dermal involvement  13) underlying fascia: free of tumor  14) lymph node: free of tumor(0/6).</p>

No	Coordinate		Sex	Age	Key Word	Histological Diagnosis
26	F	1,2	f	64	invasive ductal carcinoma	<p>Breast, right, partial mastectomy:  invasive ductal carcinoma  1) size: 2.5x2.0cm  2) Black's nuclear grade: 1(poorly differentiated)  3) modified Bloom-Richardson's histological grade: III (tubule formation: 2, nuclear pleomorphism: 3, mitosis: 3)  4) intraductal component: absent  5) resection margins: negative  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present, in invasive cancer, in association with benign epithelium  9) ER(+), PR(+), C erb B2(-: 0+/3+),E-cadherin(+)  10) overlying skin: free of tumor  11) lymph node, sentinel(1/1), axillary(1/1): tumor metastasis in 1 out of 1 nodes(with pericapsular tumor spread).</p>
27	F	3,4	f	67	invasive ductal carcinoma	<p>Breast, side unstated, modified radical mastectomy:  invasive ductal carcinoma  1) size: 3.5x2.5cm  2) site: LI quadrant, 6-8 o'clock area, near the nipple  3) Black's nuclear grade: 1(poorly differentiated)  4) modified Bloom-Richardson's histological grade: III (tubule formation: 2, nuclear pleomorphism: 3, mitosis: 3)  5) intraductal component: 5%  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: absent  9) ER(+), PR(+), C erb B2(-: 1+/3+)  10) nipple and areola: free of tumor  11) overlying skin: involvement of tumor  12) underlying fascia: free of tumor  13) lymph node, axillary(10/17), level III(1/5): (11/22): tumor metastasis in 11 out of 22 nodes(the size of the largest metastatic tumor: 3x2cm) with extensive perinodal tumor spread.</p>

No	Coordinate	Sex	Age	Key Word	Histological Diagnosis
28	F 5,6	f	56	invasive ductal carcinoma	<p>Breast, left, modified radical mastectomy:  invasive ductal carcinoma  1) size: 4.3x2.2cm  2) site: LUO quadrant, 2 o'clock area, 5cm away from the nipple  3) Black's nuclear grade: 1 (poorly differentiated)  4) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 3, mitosis: 3)  5) EIC: present  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) ER(-), PR(+), C erb B2(-:1+/3+)  10) associated benign changes: ductal carcinoma in situ in the background  - nuclear grade: high  - histological grade: high  - necrosis: present (punctate)  - architectural types: solid, micropapillary  - extent of DCIS: 7.3x6cm  - calcification: absent  - microinvasion: present, multifocal  11) nipple and areola: free of tumor  12) overlying skin: free of tumor  13) underlying fascia: free of tumor  14) lymph node, axillary(3/12): tumor metastasis in 3 out of 12 lymph nodes without pericapsular tumor spread (the largest tumor deposit: 1.1x0.8cm).</p>

No	Coordinate		Sex	Age	Key Word	Histological Diagnosis
29	F	7,8	f	38	invasive ductal carcinoma	<p>Breast, right, partial mastectomy:  invasive ductal carcinoma  1) size: 3cm  2) Black's nuclear grade: 2 (moderately differentiated)  3) modified Bloom-Richardson's histological grade: II (tubule formation: 2, nuclear pleomorphism: 2, mitosis: 2)  4) intraductal component: 10%  5) resection margins: negative, distance to closest (relevant) margin: 5mm  6) vascular invasion: present  7) perineural invasion: absent  8) microcalcification: present in ductal carcinoma in situ  9) overlying skin: free of tumor.  10) ER(+), PR(+), C erb B2(-:0/3+), E-Cadherin(+).</p>
30	F	9,10	f	48	invasive ductal carcinoma	<p>Breast, left, partial mastectomy:  invasive ductal carcinoma  1) size: 2.8x1.9cm  2) Black's nuclear grade: 2(moderately differentiated)  3) modified Bloom-Richardson's histological grade: III (tubule formation: 3, nuclear pleomorphism: 2, mitosis: 3)  4) intraductal component: EIC: present  5) resection margins: negative  6) vascular invasion: absent  7) perineural invasion: absent  8) microcalcification: absent  9) ER(-), PR(1+/3+), C erb B2(+:3+/3+)  10) lymph node, sentinel(0/2): free of tumor.</p>