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:
Summary of tissue spots

<table>
<thead>
<tr>
<th>No</th>
<th>Coordinate</th>
<th>Sex</th>
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<th>Key Word</th>
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<tbody>
<tr>
<td>1</td>
<td>A 1,2</td>
<td>f</td>
<td>64</td>
<td>invasive ductal carcinoma</td>
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<tr>
<td>2</td>
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<td>f</td>
<td>48</td>
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<td>F 9,10</td>
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<td>invasive ductal carcinoma</td>
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A202 VI- Breast cancer tissues
(formalin fixed)

QC sheet LOT#132120804141
Hematoxylin and Eosin staining

A1    A2    A3    A4

A5    A6    A7    A8

A9    A10   B1    B2

B3    B4    B5    B6

B7    B8    B9    B10

C1    C2    C3    C4
A202 VI - Breast cancer tissues

(formalin fixed)

QC sheet_LOT#132120804141
Hematoxylin and Eosin staining
A202 VI - Breast cancer tissues (formalin fixed)

QC sheet_LOT#132120804141
Hematoxylin and Eosin staining

E9  E10  F1  F2
F3  F4  F5  F6
F7  F8  F9  F10
<table>
<thead>
<tr>
<th>No</th>
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<th>Histological Diagnosis</th>
</tr>
</thead>
</table>
| 1  | A 1,2      | f   | 64  | invasive ductal carcinoma | Breast, right, modified radical mastectomy: postincisional biopsy with residual invasive ductal carcinoma  
1) size of the residual tumor: 2.6x1.9cm  
2) site: RUL quadrant, 10 o'clock area, 3cm 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) intraductal component: EIC: present  
6) focal squamoid differentiation  
7) vascular invasion: present  
8) perineural invasion: absent  
9) microcalcification: present in DCIS  
10) immunohistochemistry: ER(-), PR(+), C erb B2(weak+: 3+/3+)  
11) nipple and areola: free of tumor  
12) overlying skin: free of tumor.  
13) underlying fascia: free of tumor.  
14) lymph node, sentinel(1/2), axillary(1/13):(2/15): tumor metastasis in 2 out of 15 nodes. |
| 2  | A 3,4      | f   | 68  | invasive ductal carcinoma | Breast, right, partial mastectomy: invasive ductal carcinoma  
1) size: 2.2x1.3cm  
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: 10%  
5) resection margins: negative  
6) vascular invasion: absent  
7) perineural invasion: absent  
8) microcalcification: present in invasive cancer, in ductal carcinoma in situ  
9) ER(+), PR(+), C erb B2(weak+: 2+/3+)  
10) underlying fascia: free of tumor  
11) lymph node, sentinel(0/2): free of tumor. |
### A202VI: Breast cancer tissues

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<tr>
<td>3</td>
<td>A 5,6</td>
<td>f</td>
<td>50</td>
<td>invasive ductal carcinoma</td>
<td>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.</td>
</tr>
<tr>
<td>4</td>
<td>A 7,8</td>
<td>f</td>
<td>74</td>
<td>invasive ductal carcinoma</td>
<td>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.</td>
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| 5  | A          | 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          | 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. |
**Detailed histology**

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</table>
| 8  | B 5,6      | f   | 42  | invasive ductal carcinoma | 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. |
| 9  | B 7,8      | f   | 43  | invasive ductal carcinoma | 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. |
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</table>
| 10 | B 9,10     | f   | 45  | invasive ductal carcinoma | 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. |
| 11 | C 1,2      | f   | 43  | invasive ductal carcinoma | 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. |
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</table>
| 12 | C 3,4      | f   | 30  | invasive ductal carcinoma | 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. |
| 13 | C 5,6      | f   | 53  | invasive ductal carcinoma | 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. |
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</table>
| 14 | C 7,8      | f   | 50  | invasive ductal carcinoma | 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. |
| 15 | C 9,10     | f   | 38  | invasive ductal carcinoma | 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. |
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| 16 | D          | 1,2 | f   | invasive ductal carcinoma | Breast, left, modified radical mastectomy: invasive ductal carcinoma  
1) size: 1.5x1.3cm and 0.5x0.3cm (each separated by 1.5cm)  
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) vascular invasion: present  
6) perineural invasion: absent  
7) microcalcification: absent  
8) immunohistochemistry: ER(–), PR(–), C erb B2(–: 0/3+)  
9) ductal carcinoma in situ in the background  
   - nuclear grade: high  
   - histological grade: intermediate  
   - necrosis: absent  
   - architectural types: cribriform, solid  
   - extent of DCIS: 4x3cm  
   - calcification: absent  
10) associated benign changes: fibrocystic change with florid ductal epithelial hyperplasia  
11) nipple and areola: free of tumor.  
12) overlying skin: free of tumor.  
13) underlying fascia: free of tumor.  
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). |
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<tr>
<td>18</td>
<td>D 5,6 f</td>
<td>46</td>
<td>invasive ductal carcinoma</td>
<td>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.</td>
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<tr>
<td>19</td>
<td>D 7,8</td>
<td>f</td>
<td>26</td>
<td>invasive ductal carcinoma</td>
<td>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).</td>
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<tr>
<td>20</td>
<td>D 9,10</td>
<td>f</td>
<td>68</td>
<td>invasive ductal carcinoma</td>
<td>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).</td>
</tr>
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| 21 | E 1,2      | f   | 65  | invasive ductal | Breast, left, modified radical mastectomy:  
invasive ductal carcinoma  
1) size: 2.7x2.2cm  
2) site: LUO quadrant, 2 o'clock area, 1.5cm 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) intraductal component: 5%  
6) resection margins: negative  
7) Vascular invasion: present  
8) perineural invasion: absent  
9) microcalcification: present, in invasive cancer, In DCIS, in stroma  
10) ER(-), PR(-), C erb B2(+: 3+/3+)  
11) associated ductal carcinoma in situ  
   - nuclear grade: high  
   - histological grade: high  
   - necrosis: present(comedo)  
   - architectural types: solid  
   - calcification: present in DCIS  
12) nipple and areola: free of tumor  
13) overlying skin: free of tumor  
14) underlying fascia: free of tumor  
15) lymph node, axillary(2/23): tumor metastasis in 2 out of 23 nodes (with focal pericapsular tumor spread). |
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<td>22</td>
<td>E 3,4</td>
<td>f</td>
<td>48</td>
<td>invasive ductal carcinoma</td>
<td>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.</td>
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<td>23</td>
<td>E 5,6</td>
<td>f</td>
<td>44</td>
<td>invasive ductal carcinoma</td>
<td>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+).</td>
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| 24 | E 7,8      | f   | 65  | invasive ductal carcinoma | 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. |
| 25 | E 9,10     | f   | 68  | invasive ductal carcinoma | Breast, right, modified radical mastectomy:
<p>|    |            |     |     |          | 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>
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<tr>
<td>26</td>
<td>F 1,2</td>
<td>f</td>
<td>64</td>
<td>invasive ductal carcinoma</td>
<td>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).</td>
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<tr>
<td>27</td>
<td>F 3,4</td>
<td>f</td>
<td>67</td>
<td>invasive ductal carcinoma</td>
<td>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.</td>
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| 28 | F 5,6 f 56 | invasive ductal carcinoma | 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). |
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| 29 | F 7,8 f    | 38  |     | invasive ductal carcinoma | 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(+) |
| 30 | F 9,10 f   | 48  |     | invasive ductal carcinoma | 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 |