Stratification of axillary lymph node metastasis risk with breast magnetic resonance imaging in breast cancer

Supplementary Material

**Supplementary table 1** Characteristics of training and validation group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Factors |  | Number | Training group | Validation group | *p* |
| Age | ＜50 years | 50 | 27 (54.0) | 23 (46.0) | 0.004 |
| ≥50 years | 141 | 107 (75.9) | 34 (24.1) |  |
| Menopause | No | 50 | 28 (56.0) | 22 (44.0) | 0.011 |
| Yes | 141 | 106 (75.2) | 35 (24.8) |  |
| Tumor type | IDC | 179 | 127 (70.9) | 52 (29.1) | 0.355 |
|  | Non-IDC | 12 | 7 (58.3) | 5 (41.7) |  |
| ER | Negative | 53 | 37 (69.8) | 16 (30.2) | 0.948 |
| Positive | 138 | 97 (70.3) | 41 (29.7) |  |
| PR | Negative | 69 | 47 (68.1) | 22 (31.9) | 0.643 |
| Positive | 122 | 87 (71.3) | 35 (28.7) |  |
| HER2 | Negative | 141 | 97 (68.8) | 44 (31.2) | 0.489 |
| Positive | 50 | 37 (74.0) | 13 (26.0) |  |
| Ki-67 | Low | 48 | 32 (66.7) | 16 (33.3) | 0.541 |
| High | 143 | 102 (71.3) | 41 (28.7) |  |
| Molecular type | HR+HER2- | 114 | 80 (70.2) | 34 (29.8) | 0.697 |
| HR+HER2+ | 26 | 19 (73.1) | 7 (26.9) |  |
| HR-HER2+ | 25 | 19 (76.0) | 6 (24.0) |  |
| TN | 26 | 16 (61.5) | 10 (38.5) |  |
| Histological grade | I/II | 116 | 79 (68.1) | 37 (31.9) | 0.440 |
| III | 75 | 55 (73.3) | 20 (26.7) |  |
| Location | Outer upper quadrant not involved | 92 | 62 (67.4) | 30 (32.6) | 0.421 |
| Outer upper quadrant involved | 99 | 72 (72.7) | 27 (27.3) |  |
| Size | ＜25 mm | 103 | 68 (66.0) | 35 (34.0) | 0.176 |
| ≥25 mm | 88 | 66 (75.0) | 22 (25.0) |  |
| Margin | Circumscribed | 99 | 65 (65.7) | 34 (34.3) | 0.159 |
| Irregular/spiculated | 92 | 69 (75.0) | 23 (25.0) |  |
| Shape | Irregular | 173 | 124 (71.7) | 49 (28.3) | 0.155 |
| Round/oval | 18 | 10 (55.6) | 8 (44.4) |  |
| Internal enhancement | Heterogeneous | 129 | 94 (72.9) | 35 (27.1) | 0.238 |
| Homogeneous | 62 | 40 (64.5) | 22 (35.5) |  |
| DWI | Isointensity | 11 | 9 (81.8) | 2 (18.2) | 0.384 |
| Hyperintensity | 180 | 125 (69.4) | 55 (30.6) |  |
| ADC | Isointersity | 33 | 23 (69.7) | 10 (30.3) | 0.949 |
| Hypointensity | 158 | 111 (70.3) | 47 (29.7) |  |
| NME | No | 175 | 121 (69.1) | 54 (30.9) | 0.311 |
| Yes | 16 | 13 (81.3) | 3 (18.8) |  |
| TI curve | Persistent | 46 | 32 (69.6) | 14 (30.4) | 0.182 |
| Plateau | 95 | 62 (65.3) | 33 (34.7) |  |
| Washout | 50 | 40 (80.0) | 10 (20.0) |  |
| MRI ALN status | Negative | 128 | 91 (71.1) | 37 (28.9) | 0.687 |
| Suspicious | 63 | 43 (68.3) | 20 (31.7) |  |
| Surgery | MST | 174 | 127 (73.0) | 47 (27.0) | 0.006 |
| BCS | 17 | 7 (41.2) | 10 (58.8) |  |
| Axilla surgery | ALND | 106 | 82 (77.4) | 24 (22.6) | 0.045 |
| SLNB | 59 | 35 (59.3) | 24 (40.7) |  |
| SLNB+ALND | 26 | 17 (65.4) | 9 (34.6) |  |
| ALN burden | No | 118 | 83 (70.3) | 35 (29.7) | 0.514 |
| Low | 39 | 25 (64.1) | 14 (35.9) |  |
| Heavy | 34 | 26 (76.5) | 8 (23.5) |  |

MST: mastectomy; BCS: breast conserving surgery; ALND: axillary lymph node dissection; SLNB: sentinel lymph node biopsy