**Suppl 5**: Chi-square test of BMI classification of breast cancer patients at different ages

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Age | Variables | Category | BMI (kg/m2) | X2,P-value |
| 18.5~24.9 | >=25 |
| <50 |  |  |  |  |  |
|  | ER |  |  |  | 0.764 |
|  |  | positive | 275 | 178 |  |
|  |  | negative | 83 | 57 |  |
|  | PR |  |  |  | 0.559 |
|  |  | positive | 26 | 32 |  |
|  |  | negative | 18 | 28 |  |
|  | HER2 |  |  |  | 0.146 |
|  |  | positive | 41 | 21 |  |
|  |  | negative | 194 | 151 |  |
|  | Tumor size |  |  |  | 0.001 |
|  |  | <=2 | 123 | 70 |  |
|  |  | >2 | 78 | 51 |  |
|  | grade |  |  |  | 0.345 |
|  |  | <=2 | 100 | 69 |  |
|  |  | >2 | 61 | 53 |  |
|  | stage |  |  |  | 0.705 |
|  |  | <2 | 80 | 48 |  |
|  |  | >=2 | 72 | 39 |  |
| >=50 |  |  |  |  |  |
|  | ER |  |  |  | 0.491 |
|  |  | positive | 529 | 661 |  |
|  |  | negative | 140 | 160 |  |
|  | PR |  |  |  | 0.150 |
|  |  | positive | 25 | 38 |  |
|  |  | negative | 14 | 38 |  |
|  | HER2 |  |  |  | 0.362 |
|  |  | positive | 45 | 52 |  |
|  |  | negative | 166 | 236 |  |
|  | Tumor size |  |  |  | 0.404 |
|  |  | <=2 | 110 | 120 |  |
|  |  | >2 | 93 | 119 |  |
|  | grade |  |  |  | 0.394 |
|  |  | <=2 | 83 | 120 |  |
|  |  | >2 | 19 | 36 |  |
|  | stage |  |  |  | 0.291 |
|  |  | <2 | 61 | 30 |  |
|  |  | >=2 | 75 | 50 |  |