

Supplementary

Table S1 The changes of four biomarkers according to the clinical indicators

| Characteristics | Lactate (mM) | Pyruvate (mM) | 1-methylhistidine (mM) | Formate (mM) |
|------------------|--------------|---------------|------------------------|--------------|
| Node status | | | | |
| Node negative | 24.12±1.33 | 0.55±0.05 | 0.68±0.03 | 0.08±0.01 |
| Node positive | 24.26±1.92 | 0.51±0.04 | 0.66±0.02 | 0.07±0.01 |
| Tumor size | | | | |
| T ₁₋₂ | 25.32±1.74 | 0.59±0.04 | 0.73±0.03 | 0.07±0.01 |
| T ₃₋₄ | 25.54±3.30 | 0.49±0.07 | 0.63±0.02 | 0.07±0.01 |
| Clinical stage | | | | |
| I | 24.68±2.58 | 0.45±0.07 | 0.69±0.04 | 0.05±0.01 |
| II | 29.11±3.08 | 0.61±0.05 | 0.68±0.03 | 0.08±0.03 |
| III | 25.70±2.38 | 0.48±0.05 | 0.69±0.04 | 0.06±0.02 |

The values were described with mean ± SEM. SEM, xxxxxxxxxx.