

**Supplementary table 3 Variables included in the Lasso regression**

| Indexes                 | Variable assignment                    |
|-------------------------|----------------------------------------|
| LNМ                     | No =0, Yes =1                          |
| Gender                  | Male=1, Female=2                       |
| Age(year)               | <72 =1, ≥72 =2                         |
| BMI(kg/m <sup>2</sup> ) | (18.5-25) =1, other =2                 |
| GCSS                    | (0-11) =1, (12-16) =2, (17-23) =3      |
| REG4(ng/mL)             | <3.21 =0, ≥3.21 =1                     |
| TAP(μm <sup>2</sup> )   | <121 =0, ≥121 =1                       |
| Vascular invasion       | No =0, Yes =1                          |
| Differentiated degree   | Differentiated =0, Undifferentiated =1 |
| Infiltration depth      | Muscularis mucosae =0, Submucosa =1    |
| Diameter(cm)            | <2 =0, ≥2 =1                           |
| Tumor history           | No =0, Yes =1                          |
| Pickled food            | No =0, Yes =1                          |
| Smoking                 | No =0, Yes =1                          |
| Drinking                | No =0, Yes =1                          |