**Table S1**: **Multivariate cox regression analysis result for CB and TBa**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Features** | **Multivariate coxb** | |  | **Multivariate coxc** | | |
| **HR** | ***p* Value** |  | **HR** | ***p* Value** |
| Tumor grade | 1.394(0.912-2.131) | 0.126 |  | 1.344(0.878-2.059) | 0.174 |
| Neural invasion | 1.292(0.954-1.749) | 0.098 |  | 1.309(0.967- 1.773) | 0.0819 |
| Tumor thrombus | 1.288(0.932-1.779) | 0.125 |  | 1.279(0.925-1.768) | 0.137 |
| pTNM stage | 1.827(1.484-2.248) | <0.0001 |  | 1.800(1.462-2.216) | <0.0001 |
| CB | 0.721(0.539- 0.965) | 0.0276 |  | - | - |
| TB | - | - |  | 0.652(0.486-0.875) | 0.00433 |

a: CB: conjugated bilirubin; TB: conjugated bilirubin; b: Factors included in the multivariate cox analysis were CB and clinicopathological features; c: Factors included in the multivariate cox analysis were TB and clinicopathological features.