**Supplementary Table 4. Univariate and multivariable Cox regression analysis of clinical and biochemical characteristics associated with liver transplantation or liver-related deaths in patients with vanishing bile duct syndrome**

| **Characteristics** | **Univariate analysis** |  | **Multivariate analysis** |
| --- | --- | --- | --- |
| **Hazard ratio (95% CI)** | **P value** |  | **Hazard ratio (95% CI)** | ***p* value** |
| Female | 0.485 (0.258-0.913) | **0.025** |  |  |  |
| Age | 1.002 (0.978-1.028) | 0.847 |  |  |  |
| Etiology |  |  |  |  |  |
|  Primary biliary cholangitis | 0.501 (0.276-0.912) | **0.024** |  |  |  |
| UDCA administration | 0.759 (0.234-2.460) | 0.646 |  |  |  |
| AST in U/L | 1.002 (0.999-1.006) | 0.172 |  |  |  |
| ALP in U/L | 1.001 (1.000-1.002) | 0.231 |  |  |  |
| GGT in U/L | 1.001 (1.000-1.002) | 0.091 |  |  |  |
| ALB in g/L | 0.839 (0.782-0.900) | **< 0.001** |  |  |  |
| TBIL in µmol/L | 1.007 (1.005-1.009) | **< 0.001** |   | 1.017 (1.010-1.023) | < 0.001 |
| DBIL in µmol/L | 1.009 (1.006-1.012) | **< 0.001** |  |  |  |
| IBIL in µmol/L | 1.018 (1.011-1.025) | **< 0.001** |  |  |  |

Bold font indicates statistical significance. ALB, albumin; ALP, alkaline phosphatase; ALT, alanine aminotransferase; AST, aspartate aminotransferase; DBIL, direct bilirubin; GGT, gamma-glutamyl transpeptidase; IBIL, indirect bilirubin; TBIL, total bilirubin; VBDS, vanishing bile duct syndrome.