Supportive information Table 3: Univariable and multivariable Cox regression analysis to evaluate the influence of various variables on survival. Bold p-values (p<0.150) in univariable regression analysis were included in multivariable regression analysis.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | | | **Univariable Regression** | | | **Multivariable Regressionn** | | |
| **Hazard ratio** | **95% CI** | **p-value** | **Hazard ratio** | **95% CI** | **p-value** |
| *Pre-operative details* | | |  |  |  |  |  |  |
| Male gender | | | 0.902 | 0.689-1.182 | 0.456 |  |  |  |
| Age at resection of metastases in years | | | 1.007 | 0.994-1.020 | 0.327 |  |  |  |
| Body mass index | | | 0.980 | 0.955-1.008 | **0.144** |  |  |  |
| Hemoglobin in g/dl | | | 0.851 | 0.774-0.935 | **0.001** |  |  |  |
| Leukocytes in tsd/µl | | | 0.991 | 0.927-1.060 | 0.788 |  |  |  |
| Platelets in tsd/µl | | | 1.002 | 1.000-1.004 | **0.068** |  |  |  |
| Quick in % | | | 0.988 | 0.977-0.998 | **0.068** | **0.989** | **0.979-1.000** | **0.048** |
| ASAT (GOT) in U/l | | | 1.000 | 0.996-1.004 | 0.938 |  |  |  |
| Creatinine in µmol/l | | | 1.000 | 0.992-1.008 | 0.997 |  |  |  |
| Resection severity index | | | 1.102 | 1.015-1.196 | **0.037** |  |  |  |
| Fibrosis-4 score | | | 1.048 | 0.894-1.227 | 0.570 |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Therapy of metastases* | | |  |  |  |  |  |  |
| Neoadjuvant chemotherapy 5-FU + Oxaliplatin | | | 1.206 | 0.754-1.931 | 0.447 |  |  |  |
| Neoadjuvant chemotherapy 5-FU + Irinotecan | | | 1.213 | 0.740-1.990 | 0.456 |  |  |  |
| Neoadjuvant chemotherapy Other | | | 0.880 | 0.362-2.138 | 0.773 |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Primary tumor characteristics* | | |  |  |  |  |  |  |
| Location | Cecum | | reference | | |  |  |  |
| Colon ascendens | | 0.610 | 0.329-1.128 | **0.140** |  |  |  |
| Colon transversum | | 0.411 | 0.137-1.232 |  |  |  |
| Colon descendens | | 0.391 | 0.177-0.865 |  |  |  |
| Colon sigmoideum | | 0.464 | 0.269-0.780 |  |  |  |
| Rectum | | 0.497 | 0.291-0.849 |  |  |  |
| UICC 7 stages | I | | reference | | |  |  |  |
| IIa | | 1.003 | 0.459-2.191 | 0.266 |  |  |  |
| IIb | | 0.772 | 0.098-6.101 |  |  |
| IIIa | | 0.378 | 0.082-1.751 |  |  |
| IIIb | | 1.356 | 0.661-2.782 |  |  |
| IIIc | | 1.367 | 0.665-2.810 |  |  |
| IV | | 1.381 | 0.694-2.748 |  |  |
| Tumor grading | G1 | | reference | | |  |  |  |
| G2 | | 0.833 | 0.309-2.245 | 0.263 |  |  |  |
| G3 | | 1.302 | 0.435-3.896 |  |  |
| R status | R0 | | reference | | |  |  |  |
| R1 | | 1.348 | 0.500-3.635 | 0.573 |  |  |  |
| Neoadjuvant chemotherapy 5-FU | | | 0.605 | 0.358-1.023 | **0.043** |  |  |  |
| Neoadjuvant chemotherapy 5-FU + Oxaliplatin | | | 0.733 | 0.302-1.781 | 0.471 |  |  |  |
| Neoadjuvant chemotherapy Other | | | 1.060 | 0.362-2.138 | 0.873 |  |  |  |
| Adjuvant chemotherapy 5-FU | | | 1.083 | 0.826-1.420 | 0.566 |  |  |  |
| Adjuvant chemotherapy 5-FU + Oxaliplatin | | | 0.891 | 0.662-1.199 | 0.443 |  |  |  |
| Adjuvant chemotherapy 5-FU + Irinotecan | | | 1.160 | 0.572-2.351 | 0.6880 |  |  |  |
| Adjuvant chemotherapy Other | | | 0.839 | 0.530-1.329 | 0.444 |  |  |  |
| Conversion chemotherapy 5-FU | | | 2.254 | 1.310-3.878 | **0.009** |  |  |  |
| Conversion chemotherapy 5-FU + Oxaliplatin | | | 1.970 | 1.228-3.161 | **0.010** | **2.074** | **1.252-3.436** | **0.005** |
| Conversion chemotherapy 5-FU + Irinotecan | | | 1.767 | 1.197-2.608 | **0.007** |  |  |  |
| Adjuvant radiation | | | 0.923 | 0.678-1.258 | 0.611 |  |  |  |
| Local relapse | | | 1.547 | 0.930-2.574 | **0.114** |  |  |  |
|  |  |  |  |  |  |  |  |  |
| *Operative details* | | |  |  |  |  |  |  |
| Left atypical liver resection | | 1 point | reference | | |  |  |  |
| Right atypical liver resection | |  |  |  |
| Left segmental liver resection | | 2 points | 1.289 | 0.903-1.841 | 0.328 |  |  |  |
| Right segmental liver resection | |  |  |
| Bilateral atypical liver resection | |  |  |
| Left hemihepatectomy | | 3 points | 1.331 | 0.746-2.372 |  |  |
| Right hemihepatectomy | | 4 points | 1.285 | 0.869-1.901 |  |  |
| Extended left hepatectomy | | 5 points | 1.768 | 1.097-2.848 |  |  |
| Extended right hepatectomy | | 6 points | 0.985 | 0.506-1.918 |  |  |
| Left hepatectomy and right atypical liver resection | |  |  |
| Right hepatectomy and left atypical resection | | 7 points | 1.518 | 0.819-2.815 |  |  |
| Operative duration in min | | | 1.003 | 1.001-1.004 | **0.011** |  |  |  |
| Duration of Pringle’s maneuver in min | | | 1.006 | 0.997-1.015 | 0.228 |  |  |  |
| Intra-operative transfusion of pRBCs | | | 1.850 | 1.408-2.432 | **<0.001** | **1.755** | **1.280-2.407** | **<0.001** |
| Units of intra-operatively transfused pRBCs | | | 1.103 | 1.056-1.1521 | **<0.001** |  |  |  |
| Grading metastases | G1 | | 0.770 | 0.108-5.500 | 0.925 |  |  |  |
| G2 | | reference | |  |  |  |
| G3 | | 1.117 | 0.525-2.377 |  |  |
| R status | R0 | | reference | | |  |  |  |
| R1 | | 1.213 | 0.678-2.171 | 0.662 |  |  |  |
| R2 | | 1.667 | 0.413-6.723 |  |  |
| Distance to resection margin in mm | | | 0.984 | 0.970-0.999 | **0.018** |  |  |  |
| Size of largest metastases in mm | | | 1.008 | 1.004-1.012 | **<0.001** | **1.006** | **1.002-1.010** | **0.004** |
| Hepatic macrovesicular steatosis in % | | | 0.997 | 0.987-1.007 | 0.521 |  |  |  |