

**Table 1** Patients demographics

| Variable                     |            | Value           |
|------------------------------|------------|-----------------|
| Age (year)                   |            | 54.75±11.28     |
| Sex                          |            |                 |
|                              | Male       | 69 (56.6%)      |
|                              | Female     | 53 (43.4%)      |
| CEA (ng/ml)                  |            | 3.6 (1.8-12.8)  |
| CA-125 (U/ml)                |            | 8.1 (5.5-11.8)  |
| CA-199 (U/ml)                |            | 12.5 (7.1-20.6) |
| T stage                      |            |                 |
|                              | T1         | 1 (0.8%)        |
|                              | T2         | 16 (13.1%)      |
|                              | T3         | 55 (45.1%)      |
|                              | T4a        | 49 (40.2%)      |
|                              | T4b        | 1 (0.8%)        |
| N                            |            |                 |
|                              | N1a        | 45 (36.9%)      |
|                              | N1b        | 47 (38.5%)      |
|                              | N1c        | 1 (0.8%)        |
|                              | N2a        | 17 (13.9%)      |
|                              | N2b        | 12 (9.8%)       |
| AJCC                         |            |                 |
|                              | IIIA       | 12 (9.8%)       |
|                              | IIIB       | 93 (76.2%)      |
|                              | IIIC       | 17 (13.9%)      |
| Harvested lymph nodes number |            | 17.24±7.49      |
| Differentiation              |            |                 |
|                              | Well       | 26 (21.3%)      |
|                              | Moderately | 80 (65.6%)      |
|                              | Poorly     | 16 (13.1%)      |
| Tumor deposit                |            |                 |
|                              | Yes        | 22 (18.0%)      |
|                              | No         | 100 (82.0%)     |
| Paraneurophic invasion       |            |                 |
|                              | Yes        | 27 (22.1%)      |
|                              | No         | 95 (77.9%)      |
| Vessel invasion              |            |                 |
|                              | Yes        | 24 (19.7%)      |
|                              | No         | 98 (80.3%)      |
| Obstruction                  |            |                 |
|                              | Yes        | 2 (1.6%)        |
|                              | No         | 120 (98.4%)     |

CEA carcinoembryonic antigen

CA125 carbohydrate antigen 125

CA199 carbohydrate antigen 199

AJCC American Joint Committee on Cancer

Age and harvested lymph nodes number are expressed as the mean±SD. CEA, CA-125 and CA-199 are expressed as the median (interquartile range).

And the other databases of the Table 1 are expressed as the number of cases(percentage).

**Table 2** Red blood cell distribution width and hemoglobin level

| Variable                            | Value        |
|-------------------------------------|--------------|
| Intraoperative blood transfusions   |              |
| Yes                                 | 8 (6.6%)     |
| No                                  | 114 (93.4%)  |
| RDW-CV (%)                          |              |
| Pre-operation                       | 14.31±2.95   |
| Post-operation                      | 14.40±3.79   |
| Pre-chemotherapy                    | 14.82±4.24   |
| Post-chemotherapy                   | 14.96±2.63   |
| RDW-SD (%)                          |              |
| Pre-operation                       | 44.68±6.09   |
| Post-operation                      | 45.28±7.49   |
| Pre-chemotherapy                    | 46.81±10.09  |
| Post-chemotherapy                   | 58.34±9.34   |
| Hemoglobin (g/L)                    |              |
| Pre-operation                       | 125.84±23.11 |
| Post-operation                      | 113.36±21.19 |
| Pre-chemotherapy                    | 116.49±16.49 |
| Post-chemotherapy                   | 124.91±13.74 |
| Hemoglobin changes                  |              |
| Pre- and post-chemotherapy          | -8.42±14.82  |
| Pre-operation and post-chemotherapy | 0.93±21.83   |
| Chemotherapy Regimen                |              |
| mFOLFOX6                            | 109 (89.3%)  |
| CAPEOX                              | 12 (9.8%)    |
| Capecitabine                        | 1 (0.8%)     |
| Complete Chemotherapy               |              |
| Yes                                 | 21 (17.2%)   |
| No                                  | 101 (82.8%)  |

RDW-CV red blood cell volume distribution width- the change of diversity

RDW-SD red blood cell volume distribution width- standard deviation

mFOLFOX6 means chemotherapy for 6 months using capecitabine, fluorouracil and calcium folate

CAPEOX means capecitabine and oxaliplatin

Intraoperative blood transfusions, Chemotherapy Regimen and Complete Chemotherapy are expressed as the number of cases(percentage). And the other databases of the Table 2 are expressed as the the mean±SD.

**Table 3** Analysis of prognostic factors for disease free survival

| <b>Factors</b>                                   | <b>Disease Free Survival (n=122)</b> |                |
|--|--------------------------------------|----------------|
|  | <b>Hazard ratio (95% CI)</b>         | <b>P-value</b> |
| CEA (ng/ml)                                      | 1.18 (0.39-3.53)                     | 0.773          |
| CA199 (U/ml)                                     | 3.32 (0.74-14.94)                    | 0.118          |
| Harvested lymph nodes number                     | 0.26 (0.07-0.93)                     | 0.040          |
| Tumor Deposit                                    | 0.38 (0.10-1.51)                     | 0.171          |
| Paraneurophic invasion                           | 4.35 (1.27-14.99)                    | 0.020          |
| Vessel invasion                                  | 0.70 (0.15-3.40)                     | 0.662          |
| Obstruction                                      | 2.70 (0.22-33.42)                    | 0.440          |
| Hb changes (pre-operation and post-chemotherapy) | 4.85 (1.46-16.11)                    | 0.010          |

CI confidence interval

P values were calculated using the Cox-proportional hazardmodel

P < 0.05 means that the distribution of values in each group is not equal