Supplementary Material

Immune environment in ovarian cancer ascites

Christina Wefers, Tjitske Duiveman-de Boer, Refika Yigit, Petra L.M. Zusterzeel, Anne van Altena, Leon F.A.G. Massuger, I. Jolanda M. de Vries\*

**\* Correspondence:** I. Jolanda M. de Vries, Jolanda.deVries@radboudumc.nl

**Supplementary Table S1.** Comparison of the percentage DC and T cell subsets with clinicopathological characteristics.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **BDCA-1** | **BDCA-3** | **CD16** | **pDCs** | **CD4** | **CD8** | **CD4/CD8** |
| **Cytoreduction***Complete**Not complete* | 1.22.2 | 0.90.7 | 3.22.1 | 2.12.1 | 42.053.0 | 36.028.5 | 1.21.6 |
| **CaA-125 after treatment***Normal**Elevated* | 1.52.9 | 0.90.9 | 3.64.0 | 2.32.5 | 43.053.5 | 35.528.0 | 1.21.9 |
| **Response to chemo***Chemosensitive**Chemoresistant* | 1.72.5 | 0.90.9 | 2.24.4 | 2.52.0 | 43.046.5 | 32.033.5 | 1.41.3 |
| **Response to treatment***Responder**Non-responder* | 1.52.1 | 0.90.7 | 2.82.6 | 2.42.0 | 44.052.8 | 35.530.0 | 1.21.8 |

Comparison using Mann-Whitney U analysis.

**Supplementary Table S2.** Univariate Cox regression analysis on progression-free and overall survival.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  | **Progression- free survival** | **Overall survival** |
|  | **Variables** | ***n*** | **HR** | **95% CI** | ***p* value** | **HR** | **95% CI** | ***p* value** |
| **Clinical characteristics** | ***Complete cytoreduction*** |  |  |  |  |  |  |  |
|  *Complete* | 26 | 1 |  |  | 1 |  |  |
|  *Not complete* | 35 | 1.70 | 0.98-2.96 | 0.061 | 1.76 | 0.93-3.14 | 0.053 |
| ***Response to chemotherapy*** |  |  |  |  |  |  |  |
| *Chemo sensitive* | 33 | 1 |  |  | 1 |  |  |
| *Chemo resistant* | 28 | 3.56 | 2.98-10.32 | 0.002 | 4.80 | 2.60-8.84 | <0.001 |
| ***Response to treatment*** |  |  |  |  |  |  |  |
|  *Responder* | 38 | 1 |  |  | 1 |  |  |
|  *Non-responder* | 22 | 2.76 | 1.56-4.90 | 0.001 | 2.16 | 1.19-3.93 | 0.011 |
| **DC subsets** | ***BDCA-1+ mDC***  |  |  |  |  |  |  |  |
|  *Low (< 1.7)* | 28 | 1 |  |  | 1 |  |  |
|  *High (≥ 1.7)* | 28 | 1.27 | 0.72-2.22 | 0.411 | 1.33 | 0.73-2.41 | 0.349 |
| ***BDCA-3+ mDC***  |  |  |  |  |  |  |  |
|  *Low (< 0.9)* | 28 | 1 |  |  | 1 |  |  |
|  *High (≥ 0.9)* | 28 | 1.21 | 0.69-2.11 | 0.498 | 0.96 | 0.54-1.70 | 0.885 |
| ***CD16+ mDC***  |  |  |  |  |  |  |  |
|  *Low (< 2.8)* | 28 | 1 |  |  | 1 |  |  |
|  *High (≥ 2.8)* | 28 | 0.87 | 0.50-1.53 | 0.644 | 0.68 | 0.38-1.21 | 0.190 |
| ***pDC***  |  |  |  |  |  |  |  |
|  *Low (< 2.1)* | 31 | 1 |  |  | 1 |  |  |
|  *High (≥ 2.1)* | 31 | 1.09 | 0.65-1.85 | 0.737 | 0.76 | 0.44-1.31 | 0.318 |
| **T cell subsets** | ***CD4+ T cell*** |  |  |  |  |  |  |  |
|  *Low (< 45.5)* | 31 | 1 |  |  | 1 |  |  |
|  *High (≥ 45.5)* | 31 | 1.83 | 1.07-3.11 | 0.182 | 1.66 | 0.96-2.88 | 0.189 |
| ***CD8+ T cell*** |  |  |  |  |  |  |  |
|  *Low (< 33)* | 30 | 1 |  |  | 1 |  |  |
|  *High (≥ 33)* | 32 | 0.72 | 0.42-1.21 | 0.215 | 0.78 | 0.45-1.34 | 0.369 |
| ***CD4/CD8 T cell ratio*** |  |  |  |  |  |  |  |
|  *Low (< 1.3)* | 31 | 1 |  |  | 1 |  |  |
|  *High (≥ 1.3)* | 31 | 1.43 | 0.85-2.41 | 0.183 | 1.34 | 0.78-2.30 | 0.294 |

HR: hazard ratio; CI: confidence interval; mDC: myeloid dendritic cell; pDC: plasmacytoid dendritic cell.

**Supplementary Table S3.** PFS and OS rate (%) for patients with a low or high percentage of DC and T cell subsets.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **BDCA-1** | **BDCA-3** | **CD16** | **pDCs** | **CD4** | **CD8** |
|  | **Low** | **High** | **Low** | **High** | **Low** | **High** | **Low** | **High** | **Low** | **High** | **Low** | **High** |
| **PFS** |  |  |  |  |  |  |  |  |  |  |  |  |
| ≥ 12 months | 30 | 33 | 33 | 30 | 26 | 37 | 23 | 31 | 40 | 23 | 23 | 37 |
| ≥ 18 months | 22 | 22 | 22 | 19 | 19 | 26 | 17 | 24 | 30 | 13 | 17 | 23 |
| ≥ 24 months | 22 | 15 | 19 | 15 | 11 | 26 | 17 | 17 | 30 | 7 | 10 | 23 |
| **OS**  |  |  |  |  |  |  |  |  |  |  |  |  |
| ≥ 48 months | 26 | 15 | 15 | 26 | 11 | 30 | 20 | 17 | 23 | 13 | 13 | 23 |
| ≥ 60 months | 26 | 0 | 11 | 15 | 7 | 19 | 10 | 14 | 17 | 7 | 7 | 17 |
| ≥ 72 months | 19 | 0 | 11 | 7 | 7 | 11 | 10 | 7 | 13 | 3 | 3 | 13 |

PFS: Progression-free survival; OS: Overall survival.