**Additional Table S2. Correlation between the type of chemotherapy and the presence and phenotype of CTCs before and after chemotherapy in HER2-positive and HER2-negative patients**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **HER2-positive disease** | **Taxane- or Anthracycline-**  **single agents** | **Taxane-based**  **treatment** | **Combination treatment without Taxanes/Anthracyclines** |  |
| ***Baseline*** | ***+ve Patient %*** | ***+ve Patient %*** | ***+ve Patient %*** | ***p value*** |
| **Total CK+ CTCs** | 100 | 42.9 | 46.2 | 0.843 |
| **CSC+/partial-EMT+ CTCs** | 100 | 28.6 | 23.1 | 0.435 |
| **CSC+/epithelial-like CTCs** | 100 | 7.1 | 7.7 | 0.107 |
| **non-CSC+/partial-EMT CTCs** | 0 | 0 | 0 | - |
| **non-CSC+/epithelial-like CTCs** | 100 | 14.3 | 15.4 | 0.212 |
| ***Post-treatment*** |  |  |  |  |
| **Total CK+ CTCs** | 0 | 100 | 50 | 0.250 |
| **CSC+/partial-EMT+ CTCs** | 0 | 100 | 25 | 0.143 |
| **CSC+/epithelial-like CTCs** | 0 | 33.3 | 0 | 0.500 |
| **non-CSC+/partial-EMT CTCs** | 0 | 33.3 | 25 | 1.000 |
| **non-CSC+/epithelial-like CTCs** | 0 | 0 | 25 | 1.000 |
| **HER2-negative disease** | **Taxane- or Anthracycline-**  **single agents** | **Taxane-based**  **treatment** | **Combination treatment without Taxanes/Anthracyclines** |  |
| ***Baseline*** | ***+ve Patient %*** | ***+ve Patient %*** | ***+ve Patient %*** | ***p value*** |
| **Total CK+ CTCs** | 47.4 | 63 | 73.7 | 0.256 |
| **CSC+/partial-EMT+ CTCs** | 15.8 | 33.3 | 31.6 | 0.399 |
| **CSC+/epithelial-like CTCs** | 5.3 | 14.8 | 15.8 | 0.688 |
| **non-CSC+/partial-EMT CTCs** | 10.5 | 18.5 | 26.3 | 0.496 |
| **non-CSC+/epithelial-like CTCs** | 36.8 | 25.9 | 47.4 | 0.210 |
| ***Post-treatment*** |  |  |  |  |
| **Total CK+ CTCs** | 25 | 51.6 | 100 | ***0.000\**** |
| **CSC+/partial-EMT+ CTCs** | 0 | 45.2 | 76.9 | ***0.002\**** |
| **CSC+/epithelial-like CTCs** | 12.5 | 9.7 | 30.8 | 0.254 |
| **non-CSC+/partial-EMT CTCs** | 0 | 9.7 | 30.8 | 0.116 |
| **non-CSC+/epithelial-like CTCs** | 12.5 | 22.6 | 38.5 | 0.394 |

Table S2 shows the associations between the type of chemotherapy and the presence and phenotype of CTCs before and after treatment. Among HER2-positive patients, there was no correlation between the type of therapy and the detection of CTC phenotypes before or after treatment. In the HER2-negative cohort, no associations were observed regarding the baseline detection of distinct CTC subpopulations. Post-treatment, monotherapy with Taxanes or Anthracyclines was strongly associated with negative CTC status (p=0.000) and with absence of CSC+/partial-EMT+ CTCs (p=0.002). In contrast, combination treatment without Taxanes or Anthracyclines resulted in a 100% positivity for CTCs and a higher incidence of CSC+/partial-EMT+ CTCs. All the associations were investigated Exact two-sided Chi-square tests.