**Figure S1**. Log harzard ratios (HR) of distant metastasis free survival (DMFS) for *BRCA1* mutation status by years of publication



**Figure S2**. Funnel plots for the role of BRCA on overall survival



**Figure S3**. Funnel plots for the role of BRCA on breast cancer specific survival (BCSS)



**Figure S4**. Funnel plots for the role of BRCA on recurrence free survival survival (RFS)



**Figure S5**. Funnel plots for the role of BRCA on distant metastasis free survival (DMFS)



**Table S1. Pooled estimates and heterogeneity analysis according to univariate and multivariate analysis.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Univariate analysis** | | | | **Multivariate analysis** | | | |
|  |  | Studies | HR (CI 95%) | p-value | I2 | Studies | HR (CI 95%) | p-value | I2 |
| **BRCA1** | OS | 22 | **1.37 (1.21-1.67)** | 0.002 | 57% | 15 | **1.31 (1.05-1.62)** | 0.01 | 50% |
|  | BCSS | 13 | 1.07 (0.78-1.49) | 0.67 | 53% | 9 | 1.06 (0.78-1.44) | 0.70 | 47% |
|  | RFS | 5 | 0.97 (0.64-1.46) | 0.89 | 66% | 2 | 1.10 (0.72-1.68) | 0.65 | 0% |
|  | DMFS | 8 | 0.99 (0.68-1.43) | 0.96 | 59% | 10 | 0.99 (0.76-1.30) | 0.95 | 42% |
|  |  |  |  |  |  |  |  |  |  |
| **BRCA2** | OS | 10 | 1.17 (0.91-1.49) | 0.23 | 29% | 6 | 0.85 (0.61-1,19) | 0.35 | 51% |
|  | BCSS | 8 | **1.56 (1.25-1.95)** | <0.0001 | 45% | 7 | 1.26 (0.96-1.66) | 0.09 | 45% |
|  | RFS | 1 | 0.92 (0.52-1.62) | 0.77 | ─ | 3 | 1.41 (0.41-4.85) | 0.59 | 66% |
|  | DMFS | 2 | 0.98 (0.37-2.62) | 0.98 | 89% | 3 | 0.78 (0.59-1.02) | 0.07 | 0% |
|  |  |  |  |  |  |  |  |  |  |
| **BRCA1/2** | OS | 4 | 1.12 (0.45-2.78) | 0.80 | 62% | 6 | 1.08 (0.64-1.82) | 0.77 | 56% |
|  | BCSS | 0 | ─ | ─ | ─ | 2 | 1.22 (0.42-3.49) | 0.71 | 58% |
|  | RFS | 5 | 0.94 (0.61-1.44) | 0.77 | 0% | 4 | 0.85 (0.44-1.66) | 0.63 | 70% |
|  | DMFS | 1 | 2.70 (1.40-5.20) | 0.003 | ─ | 2 | **1.81 (1.03-3.17)** | 0.04 | 0% |
|  |  |  |  |  |  |  |  |  |  |
| **Overall** | OS | 30 | **1.27 (1.09-1.49)** | 0.002 | 50% | 22 | 1.15 (0.96-1.37) | 0.13 | 54% |
|  | BCSS | 16 | **1.31 (1.07-1.50)** | 0.01 | 55% | 16 | 1.17 (0,96-1.41) | 0.11 | 42% |
|  | RFS | 11 | 0.96 (0.75-1.24) | 0.77 | 33% | 9 | 1.03 (0.71-1.50) | 0.86 | 53% |
|  | DMFS | 9 | 1.09 (0.77-1.53) | 0.63 | 73% | 12 | 0.99 (0.80-1.22) | 0.89 | 43% |

*Abbreviations:* OS, overall survival; BCSS, breast cancer specific survival; RFS, recurrence free survival; DMFS, distant metastasis free survival; HR, hazard ratio; CI confidence interval; I2, between study-heterogeneity index