

Supplementary Table S1. Receptor status and treatments in the metastatic setting ($n = 42$)

| Characteristics | PABC group ($n = 11$) | Non-PABC group ($n = 31$) | <i>P</i> value |
|--|----------------------------|--------------------------------|----------------|
| Receptor status | | | |
| HR+/HER2- | 4 (36.3) | 15 (48.4) | 0.665* |
| HR+/HER2+ | 3 (27.3) | 5 (16.1) | |
| HR-/HER2+ | 0 | 3 (9.7) | |
| Triple negative | 4 (36.4) | 8 (25.8) | |
| Metastatic sites number | 3 (2-4) | 3 (1-4) | 0.527 |
| Progression during neoadjuvant chemotherapy | 2 (18.2) | 8 (25.8) | 0.999* |
| Breast surgery in metastatic setting | 1 (9.1) | 2 (6.5) | 0.999* |
| First line initial response to systemic therapy | | | |
| Complete response | 1 (9.1) | 0 | 0.396* |
| Partial response | 2 (18.2) | 7 (22.6) | |
| Stable disease | 0 | 1 (3.2) | |
| Progressive disease | 8 (72.7) | 23 (74.2) | |

Data are shown as n (%) per each group or median (range).

* *P* value was calculated from the Fisher's exact test.

PABC, pregnancy-associated breast cancer; HR, hormone receptor; HER2, human epidermal growth factor receptor 2.

Supplementary Table S2. Subgroup analysis of the PABC group (*n* = 93)

| Characteristics | Diagnosed during pregnancy (<i>n</i> = 28) | Diagnosed within 1-year postpartum (<i>n</i> = 65) | <i>P</i> value |
|--|--|--|----------------|
| Age at diagnosis (years) | 33 (28-43) | 35 (26-43) | 0.523 |
| Gestational weeks at diagnosis | 20 (4-38) | - | |
| First trimester | 9 (32.1) | - | |
| Second trimester | 12 (42.9) | - | |
| Third trimester | 7 (25.0) | - | |
| Gestational weeks at delivery ^a | 37 (30-40) | - | |
| Termination of pregnancy | 5 (17.9) | - | |
| Postpartum months at diagnosis | - | 6 (0.25-12) | |
| Receptor status | | | |
| HR+/HER2- | 14 (50.0) | 28 (43.1) | 0.261* |
| HR+/HER2+ | 8 (28.6) | 10 (15.4) | |
| HR-/HER2+ | 1 (3.6) | 6 (9.2) | |
| Triple negative | 5 (17.9) | 21 (32.3) | |
| Treatment setting | | | |
| Neoadjuvant | 13 (46.4) | 36 (55.4) | 0.685 |
| Adjuvant | 11 (39.3) | 22 (33.8) | |
| Palliative | 4 (10.7) | 7 (10.8) | |
| Neoadjuvant chemotherapy | | | |
| AC | 7 (53.8) | - | |
| AC + docetaxel | 6 (46.2) | 20 (55.6) | |
| AC + docetaxel + platinum | - | 1 (2.8) | |
| AC + docetaxel + trastuzumab | - | 8 (22.2) | |
| TCHP | - | 4 (11.1) | |
| Others | - | 3 (8.3) | |
| pCR | 2 (7.1) | 12 (18.5) | 0.215 |
| Adjuvant chemotherapy | 15 (53.6) | 26 (40.0) | 0.260 |
| Adjuvant trastuzumab | 6 (21.4) | 14 (21.5) | 0.999 |
| Adjuvant endocrine therapy | 17 (60.7) | 38 (58.5) | 0.650 |
| Adjuvant radiotherapy | 18 (64.3) | 42 (64.6) | 0.816 |

Data are shown as n (%) per each group or median (range).

* *P* value was calculated from the Fisher's exact test.

^a Data are from 23 patients excluding 5 patients who terminated pregnancies.

PABC, pregnancy-associated breast cancer; HR, hormone receptor; HER2, human epidermal growth factor receptor 2; AC, anthracycline and cyclophosphamide; TCHP, docetaxel, carboplatin, trastuzumab and pertuzumab; pCR, pathological complete response.

Supplementary Figure S1. Study design.

YBC, young breast cancer; PABC, pregnancy-associated breast cancer.

Supplementary Figure S2. Kaplan-Meier curves of survival of the PABC group. (A) Disease-free survival. (B) Overall survival.

PABC, pregnancy-associated breast cancer.