Supplemental material

Included:
Supplemental Methods. Risk of mortality and ipsilateral-breast cancer by age.

Supplemental Table 1. Risk of mortality and IBTR by age for patients in the BCT arm

Supplemental Table 2. Multivariate analysis of overall survival

Supplemental Table 3. Multivariate analysis of disease-free survival

Supplemental Methods
Risk of mortality and ipsilateral-breast cancer by age.
Age was grouped into 10-years intervals, and Cox proportional hazards model was used to estimate the relative risk of death and ipsilateral-breast tumor recurrence (IBTR) in each age group. The reference age group was (30,40]. The relative hazard by age for death and IBTR are listed in Table 1 below. The smoothed version of these relative hazards was performed by cubin spline interpolation, and is displayed in hazard_spiline.pdf.

Supplemental Tables
sTable 1. Risk of mortality and IBTR by age for patients in the BCT arm

Age	Relative Hazard of death	p-value	Relative hazard of IBTR	p-value
<= 30	0.93	0.92	0.64	0.68
(30,40]	1		1	
(40,50]	0.97	0.94	0.60	0.32
(50,60]	1.63	0.19	0.46	0.18
(60,70]	2.45	0.02	0.82	0.73
> 70	3.55	0.01	0.71	0.75

sTable 2. Multivariate analysis of overall survival

Characteristic	Value	Hazard ratio	p-value
Age	<=50	1	
	>50	2.36	0.0092
Mass side	Left	1	
	Right	0.57	0.0055

OCP use	No	1	
	Yes	0.99	0.95
Pre and post menopausal	Pre	1	
	Post	1.16	0.63
Chemo	No	1	
	Yes	1.16	0.83
Tumor stage	T1	1	
	T2	1.67	0.0086
# of Nodes	0	1	
	1-3	1.47	0.59
	>=4	5.88	0.011

sTable 3. Multivariate analysis of disease-free survival

Characteristic	Value	Hazard ratio	p-value
Treatment	MRM	1	
	BCT	1.92	0.0023
Chemo	No	1	
	Yes	2.91	0.20
Tumor stage	T1	1	
	T2	2.04	0.00070
# of Nodes	0	1	
	1-3	0.53	0.46
	>=4	1.52	0.62