High *PTEN* gene expression is a negative prognostic marker in human primary breast cancers with preserved p53 function

Breast Cancer Research and Treatment

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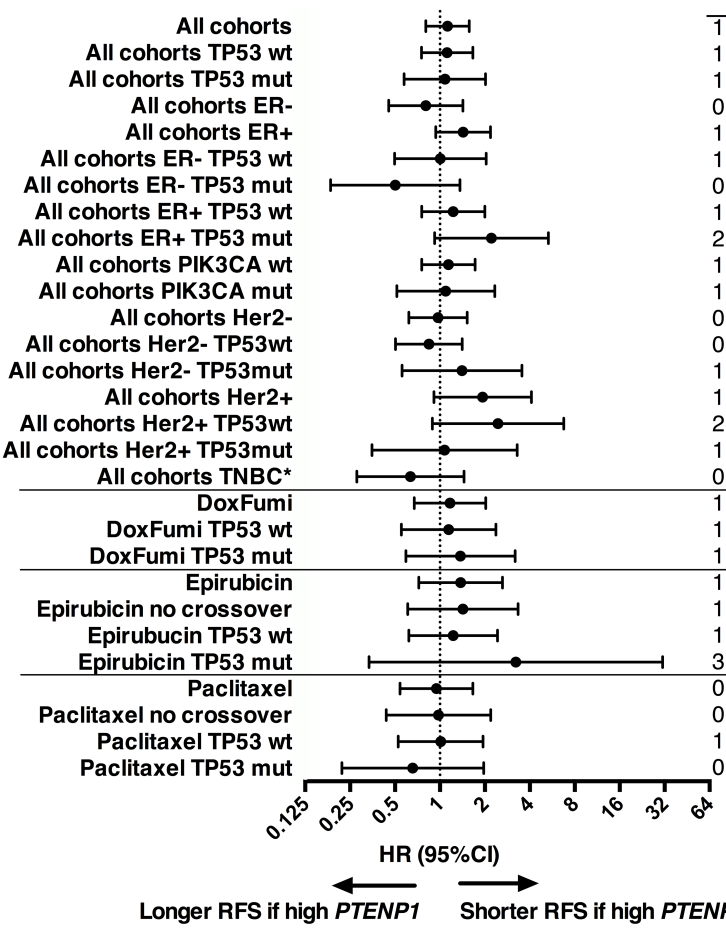
Online Resource 4

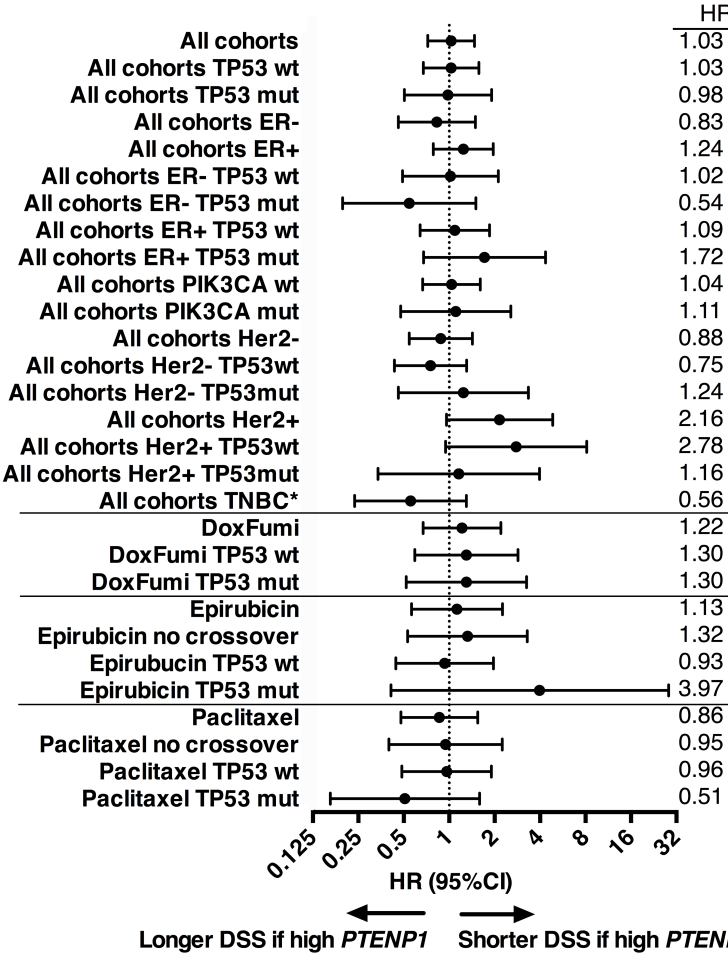
a-b Forest plot for the association between tumor *PTEN pseudogene* (*PTENP1)* gene expression level and recurrence-free (**a**) or disease-free survival (**b**) in patients with locally advanced breast cancer. Results are presented as individual hazard ratios (HRs) with corresponding 95% confidence intervals (CIs) for Study 1 (doxorubicin trial), Study 2 (FUMI trial) and Study 3 (epirubicin/paclitaxel trial) combined (i.e. all cohorts) or split by subgroups. HR>1 indicates that the survival of patients with tumor *PTENP1* gene expression above the median (*PTENP1* high) is shorter than that of patients with *PTENP1* low tumors, while HR<1 indicates the opposite. RFS: recurrence-free survival, DSS: disease-specific survival, wt: wildtype, mut: mutated, ER: estrogen receptor, PGR: progesterone receptor, TNBC: triple negative breast cancer (ER/PGR/HER2 negative breast cancer), *for patients in Study 1 and 2 PGR status was not available, and TNBC was defined as ER/HER2 negative tumors. **one case was censored before the earliest event in a stratum

a



	HR (95% CI)	p-value	Individuals No.	Events No.
All cohorts	1.12 (0.80-1.57)	0.496	282	137
All cohorts TP53 wt	1.12 (0.75-1.66)	0.583	216	98
All cohorts TP53 mut	1.08 (0.58-2.02)	0.811	66	39
All cohorts ER-	0.80 (0.45-1.42)	0.455	95	48
All cohorts ER+	1.43 (0.94-2.18)	0.098	183	87
All cohorts ER- TP53 wt	1.01 (0.50-2.04)	0.986	60	31
All cohorts ER- TP53 mut	0.50 (0.19-1.36)	0.176	35	17
All cohorts ER+ TP53 wt	1.23 (0.75-2.00)	0.411	152	65
All cohorts ER+ TP53 mut	2.22 (0.92-5.33)	0.076	31	22
All cohorts PIK3CA wt	1.14 (0.75-1.72)	0.539	181	91
All cohorts PIK3CA mut	1.09 (0.51-2.33)	0.816	57	27
All cohorts Her2-	0.97 (0.62-1.52)	0.898	138	76
All cohorts Her2- TP53wt	0.84 (0.50-1.41)	0.516	104	58
All cohorts Her2- TP53mut	1.40 (0.56-3.54)	0.472	34	18
All cohorts Her2+	1.93 (0.91-4.10)	0.086	58	29
All cohorts Her2+ TP53wt	2.45 (0.89-6.75)	0.083	39	16
All cohorts Her2+ TP53mut	1.08 (0.35-3.29)	0.899	19	13
All cohorts TNBC*	0.63 (0.28-1.45)	0.280	48	23
DoxFumi	1.17 (0.67-2.03)	0.583	93	51
DoxFumi TP53 wt	1.14 (0.55-2.37)	0.721	65	29
DoxFumi TP53 mut	1.37 (0.59-3.19)	0.462	28	22
Epirubicin	1.38 (0.72-2.63)	0.333	90	37
Epirubicin no crossover	1.43 (0.61-3.34)	0.413	61	22
Epirubucin TP53 wt	1.22 (0.62-2.43)	0.558	74	33
Epirubicin TP53 mut	3.23 (0.34-31.01)	0.310	16	4
Paclitaxel	0.95 (0.54-1.66)	0.848	99	49
Paclitaxel no crossover	0.98 (0.44-2.19)	0.958	57	25
Paclitaxel TP53 wt	1.01 (0.53-1.95)	0.972	77	36
Paclitaxel TP53 mut	0.66 (0.22-1.97)	0.452	22	12

b



	HR (95% CI)	p-value	Individuals No.	Events No.
All cohorts	1.03 (0.72-1.47)	0.87	281**	121
All cohorts TP53 wt	1.03 (0.67-1.57)	0.895	215	86
All cohorts TP53 mut	0.98 (0.01-1.91)	0.982	66	35
All cohorts ER-	0.83 (0.46-1.49)	0.533	95	45
All cohorts ER+	1.24 (0.79-1.96)	0.355	182	74
All cohorts ER- TP53 wt	1.02 (0.49-2.12)	0.96	60	29
All cohorts ER- TP53 mut	0.54 (0.20-1.50)	0.24	35	16
All cohorts ER+ TP53 wt	1.09 (0.64-1.85)	0.748	151	55
All cohorts ER+ TP53 mut	1.72 (0.68-4.35)	0.256	31	19
All cohorts PIK3CA wt	1.04 (0.67-1.61)	0.875	181	80
All cohorts PIK3CA mut	1.11 (0.48-2.56)	0.816	56	22
All cohorts Her2-	0.88 (0.54-1.42)	0.602	137	67
All cohorts Her2- TP53wt	0.75 (0.43-1.30)	0.310	104	52
All cohorts Her2- TP53mut	1.24 (0.46-3.34)	0.669	34	16
All cohorts Her2+	2.16 (0.96-4.85)	0.63	58	26
All cohorts Her2+ TP53wt	2.78 (0.95-8.15)	0.062	39	15
All cohorts Her2+ TP53mut	1.16 (0.34-3.98)	0.815	19	11
All cohorts TNBC*	0.56 (0.24-1.30)	0.175	48	22
DoxFumi	1.22 (0.67-2.20)	0.519	92	44
DoxFumi TP53 wt	1.30 (0.59-2.85)	0.514	65	25
DoxFumi TP53 mut	1.30 (0.52-3.23)	0.574	28	19
Epirubicin	1.13 (0.56-2.25)	0.737	90	32
Epirubicin no crossover	1.32 (0.53-3.29)	0.549	61	19
Epirubucin TP53 wt	0.93 (0.44-1.96)	0.853	74	28
Epirubicin TP53 mut	3.97 (0.41-28.42)	0.233	16	4
Paclitaxel	0.86 (0.48-1.54)	0.614	99	45
Paclitaxel no crossover	0.95 (0.40-2.25)	0.904	57	21
Paclitaxel TP53 wt	0.96 (0.49-1.91)	0.913	77	33
Paclitaxel TP53 mut	0.51 (0.16-1.59)	0.245	22	12