Breast Care
Multidisciplinary Journal for Research, Diagnosis and Therapy
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Supplemental Material

Supplemental Table 1 A: Basic study characteristics

Study	Enrolled time	Population			Age(years)	Follow-up (years)	Confounders*
		TNBC	Non-TNBC	Total			
Haffty et al. USA,2006	1980-2003	117(24.27%)	365(75.73%)	482	<50(49.38%) ≥50(50.62%)	median:7.9	age,family history,BRCA tumor size,chemotherapy hormones therapy
Solin et al. USA,2009	1990-2003	90(17.34%)	429(82.66%)	519	<50(31.41%) ≥50(68.59%)	median:3.9	tumor size,chemotherapy age,hormone therapy
Zaky et al. USA,2011	2003-2004	33(17.10%)	160(82.90%)	193	<50(24.87%) ≥50(75.13%)	median:3.4	chemotherapy,tumor grade, hormone therapy
Barbieri et al. Italy,2011	2002-2008	36(9.30%)	351(90.7%)	387	<50(32.30%) ≥50(67.70%)	median:4.7	tumor size,chemotherapy, hormone therapy,grade
Gangi et al. USA,2014	2000-2012	234(12.60%)	1617(87.40%)	1851	<50(25.30%) ≥50(74.70%)	median:5.0	age,tumor size,chemotherapy histology,pathologic stage, grade,

TNBC=triple negative breast cancer; * represents confounders which were statistically different between TNBC and non-TNBC.

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Supplemental Table 1 B: Study treatment

Study	Radiotherapy	Chemotherapy		Hormone therapy		Both	Trastuzumab
		TNBC	Non-TNBC	TNBC	Non-TNBC		
Haffty et al.	median:64Gy	77(65.81%)	151(41.37%)	9(7.69%)	200(54.79%)	NC	TNBC:0 Non-TNBC:0
Solin et al.	median:63Gy	56(62.22%)	49(11.42%)	6(6.67%)	139(32.40%)	TNBC:4 Non-TNBC:140	TNBC:0 Non-TNBC:1
Zaky et al.	median:60Gy	23(69.70%)	64(40.00%)	1(3.03%)	127(79.38%)	NC	TNBC:0 Non-TNBC:0
Barbieri et al.	median:60Gy	27(75.00%)	89 (25.36%)	2(5.56%)	112(31.91%)	TNBC:0 Non-TNBC:124	TNBC:0 Non-TNBC:0
Gangi et al.	NC	183(85.50%)	620(38.34%)	NC	NC	NC	NC

Median dose was delivered to whole breast plus cavity; Both:received both chemotherapy and hormone therapy;
TNBC= triple negative breast cancer; NC=not clear

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Supplemental Table 1 C: Surgery and radiotherapy in the studies

Study	Surgery	Radiotherapy
Haffty et al.	BCS. Details of tumor resection and lymph node biopsy were not reported.	Median dose to the whole breast: Nc Median cavity boost:64Gy. Supraclavicular nodal irradiation: NC. Axillary nodal irradiation: NC. Internal mammary nodal irradiation: NC.
Solin et al.	Complete gross excision of the primary tumor. Axillary lymph node staging was performed for all patients using a lower axillary lymph node dissection and sentinel lymph node biopsy.	Median dose to the whole breast:46Gy. Median cavity boost:63Gy. Supraclavicular nodal irradiation: 27 patients. Axillary nodal irradiation: 9 patients. Internal mammary nodal irradiation: 6 patients.
Zaky et al.	Lumpectomy. Detail of lymph node biopsy were not reported.	Median dose to the whole breast:50Gy. Median cavity boost :60Gy. Supraclavicular nodal irradiation: 34 patients. Axillary nodal irradiation: 5 patients. Internal mammary nodal irradiation: 2 patients.
Barbieri et al.	Lumpectomy with or without axillary nodal dissection, based on result of sentinel node.	Median dose to the whole breast:50Gy. Median cavity boost:60Gy. Supraclavicular nodal irradiation: NC. Axillary nodal irradiation: NC. Internal mammary nodal irradiation: NC.
Gangi et al.	BCS. Details of tumor resection and lymph node biopsy were not reported.	Median dose to the whole breast:NC. Median cavity boost:NC Supraclavicular nodal irradiation: NC. Axillary nodal irradiation: NC. Internal mammary nodal irradiation: NC. Whole-breast radiotherapy: 94.1%. Accelerated partial-breast radiotherapy: 3.8%.

BCS=breast conservation surgery; NC=not clear.

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Supplemental Table 2 A: Study quality

Study	Cohort design	Population Source	ER/PR assessment	Her-2 assessment
Haffty et al.	retrospective	continuous clinic record	IHC	IHC
Solin et al.	retrospective	continuous clinic record	IHC	IHC
Zaky et al.	retrospective	continuous clinic record	IHC	IHC/FISH
Barbieri et al.	retrospective	continuous clinic record	IHC	IHC/FISH
Gangi et al.	retrospective	continuous clinic record	IHC	IHC/FISH

IHC=immunohistochemistry; FISH=fluorescent in situ hybridization; ER=estrogen receptor; PR=progesterone receptor; Her-2=human epidermal growth factor receptor 2.

Supplemental Table 2 B: Study quality

Study	Relapses assessment	Metastasis assessment	Death assessment	Statistical adjusted?	Follow-up
Haffty et al.	clinic and histology results	clinic and/or radiology results	medical record	Yes	Medical record
Solin et al.	clinic, radiology and/or histology results	clinic and/or radiology results	medical record	Yes	Medical record
Zaky et al.	clinic, radiology and/or histology results	clinic and/or radiology results	medical record	Yes	Medical record
Barbieri et al.	clinic and histology results	clinic and/or radiology results	medical record	Yes	Medical record
Gangi et al.	NC	NC	NC	Yes	Medical record

NC=not clear.

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Supplemental Table 2 C: Quality assessment

Potential bias	Items to be considered for assessment of potential opportunity for bias	Haffty et al.	Solin et al.	Zaky et al.	Barbieri et al.	Gangi et al.
Study participation	1.The source population or population of interest is adequately described for key characteristics.	Yes	Yes	Yes	Yes	Yes
	2.The sampling frame and recruitment are adequately described, possibly including methods to identify the sample, period of recruitment and place of recruitment.	Yes	Yes	Yes	Yes	Yes
	3.Inclusion and exclusion criteria are adequately described.	Yes	Yes	Yes	Yes	Yes
	4.There is adequate participation in the study by eligible individuals.	Yes	Yes	Yes	Yes	Yes
	5.The baseline study sample is adequately described for key characteristics.	Yes	Yes	Yes	Yes	Yes
Study attrition	6.Response rate is adequate.	Yes	Yes	Unsure	Unsure	Yes
	7.Attempts to collect information on participants who dropped out of the study are described.	Partly	No	Partly	Partly	No
	8.Reasons for loss to follow-up are provided.	No	No	No	No	No
	9.Participants lost to follow-up are adequately described for key characteristics.	No	No	No	No	No
	10.There are no important differences between key characteristics and outcomes in participants who completed the study and those who did not.	Unsure	Unsure	Unsure	Unsure	Unsure
Prognostic factor attrition	11.A clear definition or description of the prognostic factor measured is provided.	Yes	Yes	Yes	Yes	Yes
	12.Continuous variables are reported or appropriate cut-points are used.	Yes	No	Yes	Yes	Yes
	13.The prognostic factor measure and method are adequately valid and reliable to limit misclassification bias.	Partly	Partly	Yes	Yes	Partly
	14.Adequate proportion of the study sample has complete data for prognostic factors.	Yes	Yes	Yes	Yes	Yes
	15.The method and setting of measurement are the same for all study participants.	Yes	Yes	Yes	Yes	Yes
	16.Appropriate methods are used if imputation is used for missing prognostic factor data.	Unsure	Unsure	Unsure	Unsure	Unsure
Outcome measurement	17.A clear definition of the outcome of interest is provided, including duration of follow-up and level and extent of the outcome construct	Yes	Yes	Yes	Yes	No
	18.The outcome measure and method used are adequately valid and reliable to limit misclassification bias.	Yes	Yes	Yes	Yes	No
	19.The method and setting of measurement are the same for all study participants.	Yes	Yes	Yes	Yes	Yes
Confounding measurement and account	20.All important confounders, including treatments are measured.	Partly	Partly	Partly	Partly	Partly
	21.Clear definitions of the important confounders measured are provided	Partly	Partly	Partly	Partly	Partly
	22.Measurement of all important confounders is adequately valid and reliable	Unsure	Unsure	Unsure	Unsure	Unsure
	23.The method and setting of confounding measurement are the same for all study participants.	Yes	Yes	Yes	Yes	Yes
	24.Appropriate methods are used if imputation is used for missing confounder data.	Unsure	Unsure	Unsure	Unsure	Unsure
	25.Important potential confounders are accounted for in the study design.	Yes	Yes	Yes	Yes	Yes
	26.Important potential confounders are accounted for in the analysis.	Yes	Yes	Yes	Yes	Yes
Analysis	27.There is sufficient presentation of data to assess the adequacy of the analysis.	Yes	Yes	Unsure	Unsure	Yes
	28.The strategy for model building is appropriate and is based on a conceptual framework or model.	Yes	Yes	Yes	Yes	Yes
	29.The selected model is adequate for the design of the study.	Yes	Yes	Yes	Yes	Yes
	30.There is no selective reporting of results.	No	No	No	No	No

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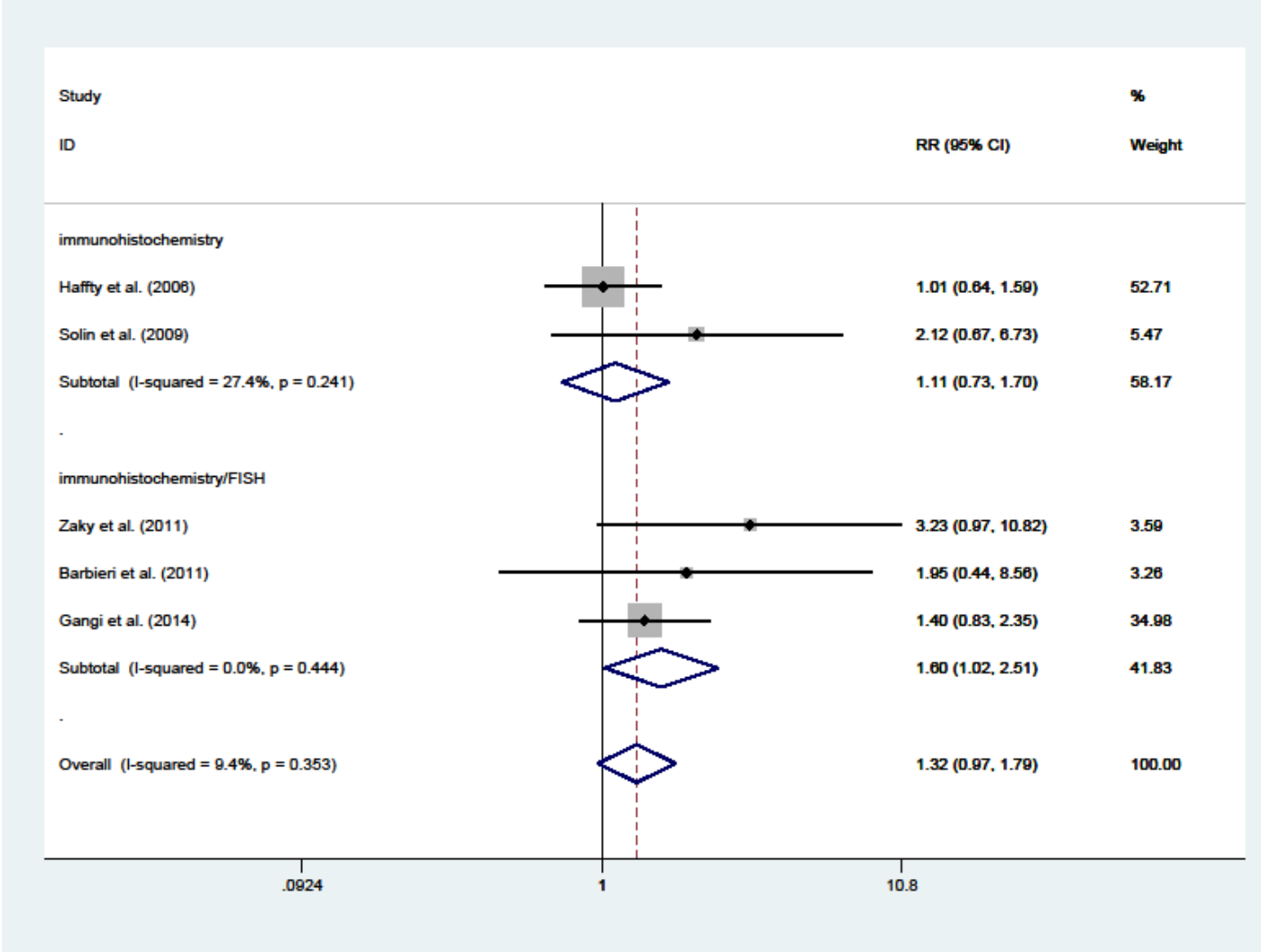

Supplemental Fig. 1. A. Pooled relative risks (RRs) of 5-year local relapse-free survival (LFS) of triple negative breast cancer (TNBC) versus non-TNBC

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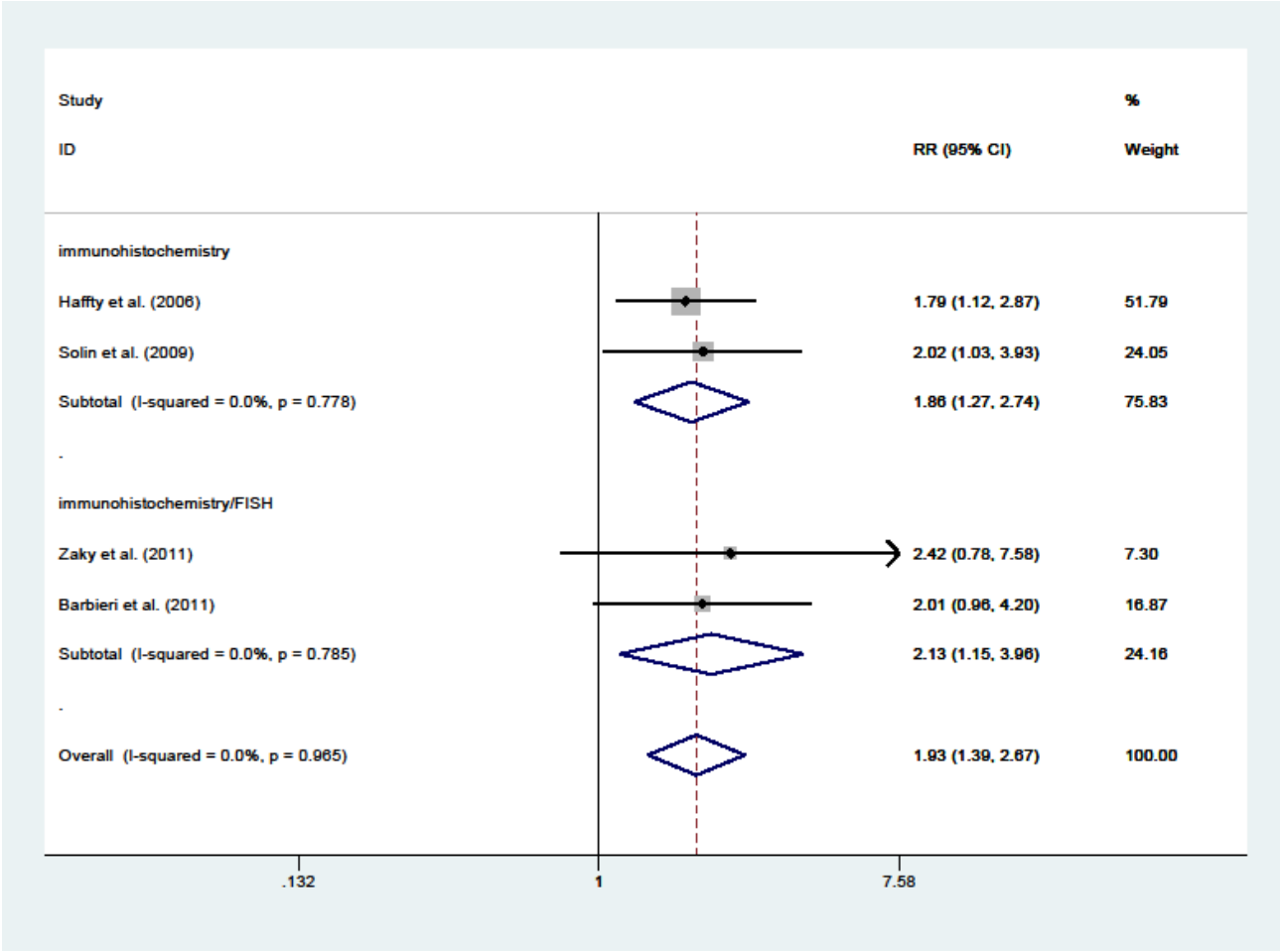

Supplemental Fig. 1.B. Pooled RRs of 5-year overall survival (OS) of TNBC versus non-TNBC

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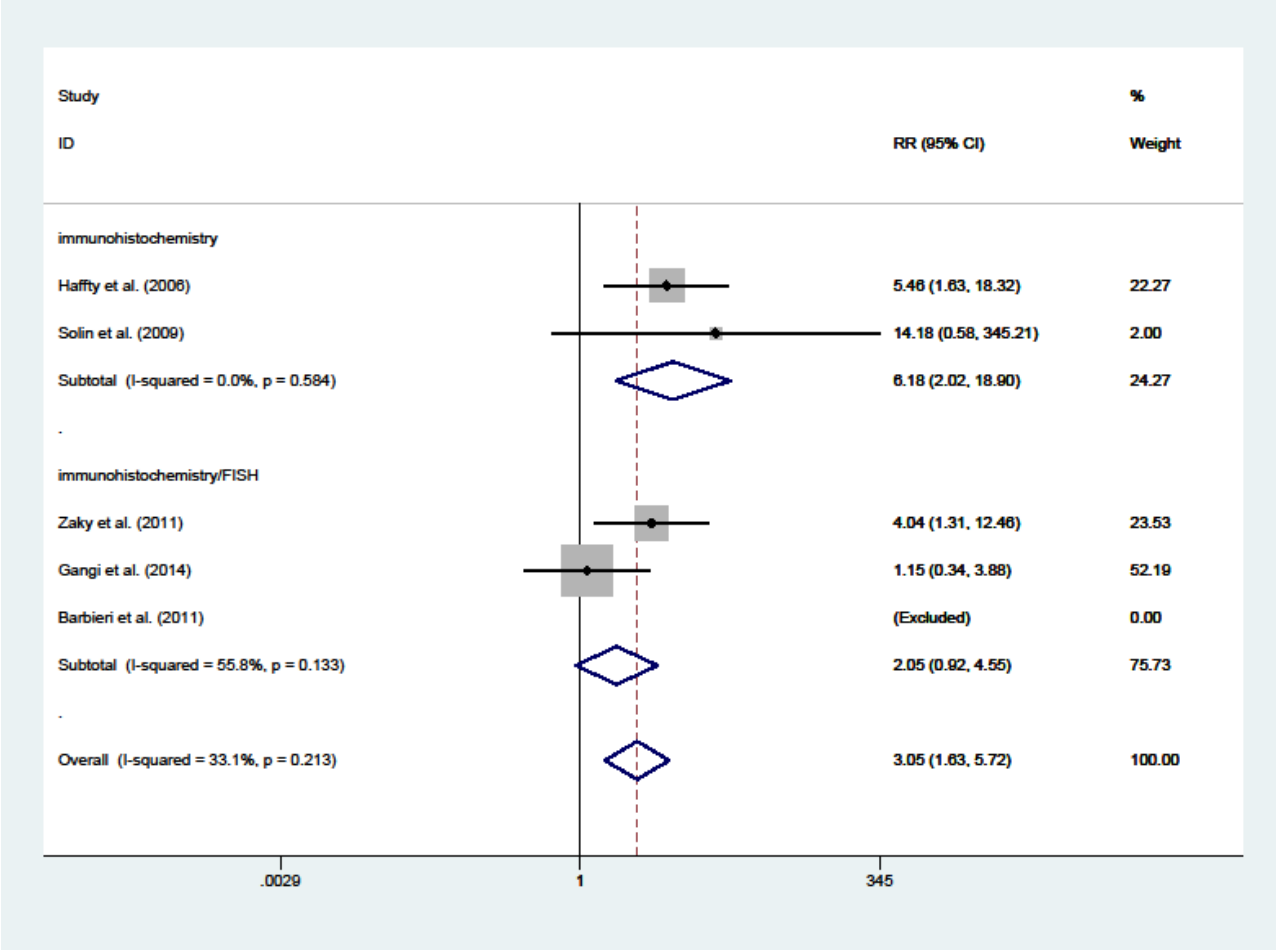

Supplemental Fig. 1.C. Pooled RRs of 5-year regional relapse-free survival (RFS) of TNBC versus non-TNBC

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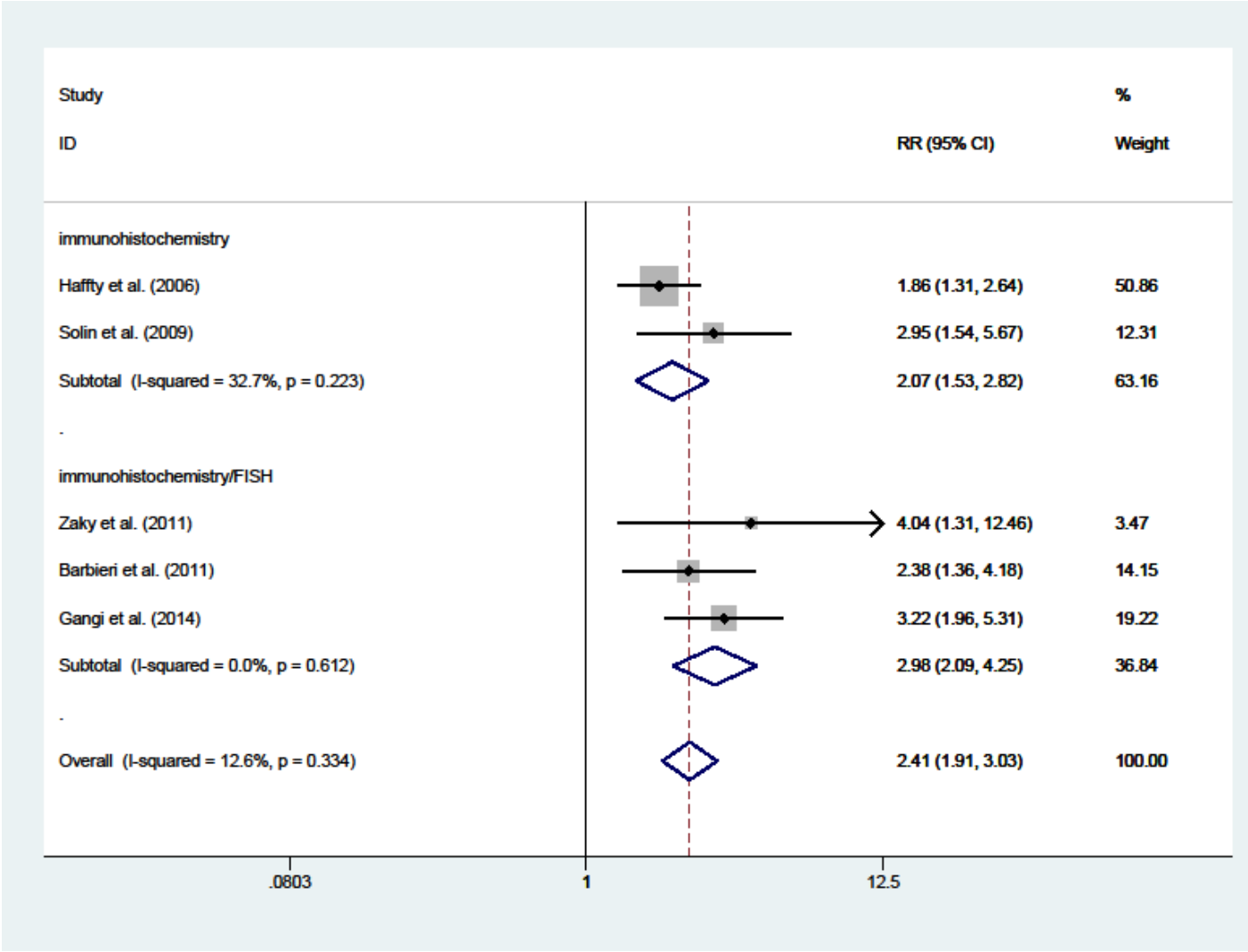

Supplemental Fig. 1.D. Pooled RRs of 5-year distant metastasis-free survival (DFS) of TNBC versus non-TNBC