eISSN 2005-8330 https://doi.org/10.3348/kjr.2023.1188 Korean J Radiol 2024;25(7):623-633



Diffusion-Weighted MRI for the Assessment of Molecular Prognostic Biomarkers in Breast Cancer

Mami Iima^{1,2}, Masako Kataoka², Maya Honda^{2,3}, Denis Le Bihan⁴

¹Department of Fundamental Development for Advanced Low Invasive Diagnostic Imaging, Nagoya University Graduate School of Medicine, Nagoya, Japan

²Department of Diagnostic Imaging and Nuclear Medicine, Kyoto University Graduate School of Medicine, Kyoto, Japan

³Department of Diagnostic Radiology, Kansai Electric Power Hospital, Osaka, Japan

⁴NeuroSpin, Joliot Institute, Department of Fundamental Research, Commissariat à l'Energie Atomique (CEA)-Saclay, Gif-sur-Yvette, France

This study systematically reviewed the role of diffusion-weighted imaging (DWI) in the assessment of molecular prognostic biomarkers in breast cancer, focusing on the correlation of apparent diffusion coefficient (ADC) with hormone receptor status and prognostic biomarkers. Our meta-analysis includes data from 52 studies examining ADC values in relation to estrogen receptor (ER), progesterone receptor (PgR), human epidermal growth factor receptor 2 (HER2), and Ki-67 status. The results indicated significant differences in ADC values among different receptor statuses, with ER-positive, PgR-positive, HER2-negative, and Ki-67-positive tumors having lower ADC values compared to their negative counterparts. This study also highlights the potential of advanced DWI techniques such as intravoxel incoherent motion and non-Gaussian DWI to provide additional insights beyond ADC. Despite these promising findings, the high heterogeneity among the studies underscores the need for standardized DWI protocols to improve their clinical utility in breast cancer management.

Keywords: Breast cancer; Apparent diffusion coefficient; Estrogen receptor; Progesterone receptor; HER-2; Ki-67

INTRODUCTION

Diffusion-weighted imaging (DWI), with more than 35 years of development, provides microstructural and functional information that complements the excellent anatomical details provided by MRI. Although dynamic contrast-enhanced breast MRI can detect malignancies with high sensitivity, its specificity is variable. It also requires the administration of a gadolinium contrast agent, which can cause nephrogenic systemic fibrosis in patients with renal dysfunction, possible tissue deposition with unknown long-term side effects, and contraindications in specific

Received: March 2, 2023 Revised: February 28, 2024 Accepted: April 11, 2024

Corresponding author: Mami Iima, MD, PhD, Department of Fundamental Development for Advanced Low Invasive Diagnostic Imaging, Nagoya University Graduate School of Medicine, 65 Tsurumai-cho, Showa-ku, Nagoya 466-8550, Japan

• E-mail: mamiiima1@gmail.com

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (https://creativecommons.org/licenses/by-nc/4.0) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited. populations like pregnant women [1].

DWI enables the detection of lesions based on tissue microstructural features revealed by the diffusion of water molecules. The apparent diffusion coefficient (ADC), which eliminates the confounding T1 and T2 effects visible on DW images and provides a quantitative estimation of the water diffusion process in tissues, has been useful for differentiating between benign and malignant breast lesions [2]. Generally, DWI provides outstanding image contrast that reflects the architecture of cancer-specific tissue. Recent advances in MRI gradient hardware have enabled the study of diffusion time-dependent ADCs [3]. Within structured environments, such as cancers, interactions with barriers occur more frequently, thereby reducing the ADC. This makes time-dependent DWI particularly effective for cancer characterization.

Recently, the use of DWI as a complementary and potential alternative imaging technique for evaluating breast lesions has increased. In particular, DWI can provide information in vivo at a microscopic scale, even though DWI data are acquired at the millimeter scale in the form of an ADC that reflects the specific tissue features of cancer



[4,5]. Breast DWI has many advantages that complement conventional breast MRI, thereby improving breast cancer diagnostic accuracy (particularly specificity) and reducing unnecessary biopsy rates in suspected cases of breast cancer.

Many radiologists include ADC in breast MRI diagnostic reports [6], although this parameter has not yet been included in the Breast Imaging Reporting and Data System (BI-RADS). There is a growing interest in making DWI a routine sequence in BI-RADS. However, the use of an ADC with specific cutoff values requires hospitals and institutions to standardize breast DWI or at least meet a minimum level of quality assurance. For these reasons, consensus and recommendations have been published by the International Breast DWI Working Group of the European Society of Breast Imaging [7] and Korean radiologists [8]. Some multicenter studies have revealed that the ADC has the potential to spare patients from unnecessary biopsies for breast cancer diagnosis [9,10], thus reducing patient anxiety and healthcare costs. As numerous studies have highlighted, ADC is also pivotal in distinguishing hormone receptor statuses and prognostic biomarkers in breast cancer [11], particularly the estrogen receptor (ER), progesterone receptor (PgR), human epidermal growth factor receptor 2 (HER2), and the marker of proliferation Ki-67. In this context, we present a focused and comprehensive summary of evidence regarding the relationship between ADC and the status of crucial ER, PgR, HER-2, and Ki-67 biomarkers in breast cancer. Additionally, we discuss the use of DWI to determine hormone receptor status in breast cancer.

Relationship between ADC and Hormone Receptor Status of Breast Cancer

For a comprehensive, quantitative summary of the relevant data in the literature, we conducted a systematic review and meta-analysis following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses



Fig. 1. Flowchart of the screening process for the meta-analysis. MRI = magnetic resonance imaging, DWI = diffusion-weighted imaging, ADC = apparent diffusion coefficient, SD = standard deviation

(PRISMA) statement. The following words were searched using the PubMed, Web of Science, and Google Scholar databases: "breast neoplasm or breast cancer or breast tumor" and "diffusion weighted MRI or diffusion-weighted imaging or diffusion weighted imaging or ADC or apparent diffusion coefficient" and "estrogen receptor or progesterone receptor" or "ER" or "PgR" or "human epidermal growth factor receptor 2" or "HER2 or HER-2." We limited our search to English-language publications and data published between January 2008 and July 2023. The references cited by the relevant articles were manually scanned to search for other pertinent studies.

Two investigators selected eligible studies, and relevant data were independently extracted from the retrieved papers. The results from each study were examined cooperatively and a consensus was reached on all items through discussion and reexamination. All the authors approved the final decision regarding the studies to be admitted. The standardized mean difference in ADC with a 95% confidence interval was used as a summary statistic for ER, PgR, and HER2 categories. A total of 52 articles [3,12-62] were finally reviewed and quantitatively summarized (Fig. 1).

ADCs for Differentiation of ER Status

A forest plot of the mean differences in ADCs between ER-positive and -negative breast cancers from 44 studies [3,13,14,16-22,24,26-38,41-54,56-61] is given in Figure 2A. There was large heterogeneity among the studies ($I^2 = 80\%$), but overall, ER-positive cancers exhibited significantly lower ADCs than ER-negative cancers (P < 0.01).

ADCs for Differentiation of PgR Status

A forest plot of the mean difference in ADCs between PgR-positive and -negative breast cancers from 41 studies [3,13,14,16-22,24,26-37,41-43,45-51,53,54,56-61] is provided in Figure 2B. It also showed large heterogeneity across the studies ($I^2 = 80\%$), but overall, PgR-positive cancers had significantly lower ADCs than PgR-negative cancers (P < 0.01).

ADCs for Differentiation of HER2 Status

A forest plot of the mean difference in ADCs between HER2-negative and positive cancers from 40 studies [3,15-18,20,21,24-29,31-34,36-38,41-54,56-61] is given in Figure 3A. Again, this showed a large heterogeneity across the studies ($I^2 = 92\%$). Overall, these results showed that HER2-negative cancers had significantly lower ADCs than



HER2-positive cancers (P < 0.01).

ADCs for Differentiation of Ki-67 Status

A forest plot of the mean difference in ADCs between Ki-67-positive and -negative cancers from 41 studies [3,12-18,20,21,23,24,26-28,31-40,42,43,45-48,51-55,57,59-62] is given in Figure 3B and shows that Ki-67-positive cancers have significantly lower ADCs than cancers with a negative Ki-67 status (P < 0.01), although a large heterogeneity was observed ($I^2 = 94\%$).

Clinical examples of different ER, PgR, HER2, and Ki-67 statuses are shown in Figure 4.

ADCs for Differentiation of Breast Cancer Subtypes

The use of ADCs for the differentiation of breast cancer subtypes has yielded mixed findings, and a meta-analysis has shown that ADC cannot differentiate between breast cancer subtypes [63]. Further investigation is required to verify these results.

ADCs for Cancer Diagnosis, Predicting Treatment Response, and Prognosis

These results show that ER-positivity, PgR-positivity, and HER2-negativity are all related to lower ADC values, although there was a high degree of heterogeneity across the studies. Regarding the relationship between ADC and Ki-67 status, the overall results are consistent with recent clinical and preclinical studies showing that changes in ADC at different diffusion times may provide information on Ki-67 status [3,64] and suggesting that Ki-67 is a useful marker of tissue proliferation at a microscopic scale. In contrast, other studies have reported mixed results regarding the ability of ADCs to differentiate between high and low expression levels of the nuclear protein Ki-67 in breast cancer [2], and a recent multicenter study revealed a relatively low diagnostic performance (AUC: 0.6) of ADCs in such cases [11]. One reason for the variability in these findings might be the differing thresholds for considering Ki-67 as positive in breast cancer, which range from 10% to 50% [11]. Further research is needed to improve the accuracy and reliability of ADC-based differentiation of the Ki-67 status. In addition, although our meta-analysis elucidated the correlations between ADC values and the status of hormone receptors, including ER, PgR, HER2, and Ki-67 in breast cancer, the precise effect size of these correlations remains to be definitively established, warranting further research for more conclusive insights. Corrections based on the lesion



	P	ositive		Neo	ative		Ν	lean Difference	Mean Difference
Study or Subgroup	Mean	SD	Total	Mean	SD	Total N	Weight	IV, Fixed, 95% CI	IV, Fixed, 95% CI
Arponent 2015 [13]	0.41	0.13	86	0.43	0.14	15	2.1%	-0.02 [-0.10, 0.06]	
Aydin 2018 [14]	0.993	0	50	0.97	0	11		Not estimable	
Chang 2023 [16]	1.087	0.268	50	1.056	0.223	20	0.8%	0.03 [-0.09, 0.15]	
Chen 2022 [18]	0.69	0.10	90 157	0.9	0.22	24 57	1.4% 2.1%	-0.01 [-0.10, 0.06]	<u> </u>
Cho 2016 [19]	1.45	0.64	29	1.45	0.63	16	0.1%	0.00 [-0.39, 0.39]	
Choi 2012 BJR [20]	0.885	0.152	177	0.941	0.168	113	8.5% -	0.06 [-0.09, -0.02]	~
Choi 2012 WJSO [21]	0.9465	0	89	1.0436	0	28		Not estimable	
Feng 2022 [24]	1.32	0.41	63	1.45	0.3	15	0.4%	-0.13 [-0.31, 0.05]	
Horvat 2019 [26]	1.03	0.115	80	1.13	0.2	27	2.0% -	0.10 [-0.18, -0.02]	
lima 2018 [27]	0.92	0.31	116	1 04	0.23	24	1.1%	-0.08 [-0.19, 0.03]	
Jeh 2011 [28]	0.952	0.69	80	1.042	0.484	20	0.2%	-0.09 [-0.33, 0.15]	
Kamitani 2013 [22]	0.88	0.15	63	1.01	0.21	18	1.1% -	0.13 [-0.23, -0.03]	
Karan 2016 [29]	0.948	0	57	0.981	0	13		Not estimable	
Kim 2009 [30]	1.09	0	33	1.15	0	29		Not estimable	
Kim 2015 [31]	0.803	0.827	125	0.876	0.867	48	0.2%	-0.07 [-0.36, 0.21]	
Kim 2016 [32]	1.16	0.635	194	1.23	0.47	81	0.7%	-0.07 [-0.21, 0.07]	
Kitajima 2016 [33]	0.899	0.212	153	0.885	0.183	17	3.9%	0.01 [-0.04, 0.07]	
Lee 2017 [35]	1.08	0.217	62	1 24	0.187	20	0.8%	-0.01 [-0.12, 0.09]	
Linh 2021(Tuan Linh) [361 1.01	0.06	33	1.02	0.05	16	12.1%	-0.01 [-0.04, 0.02]	+
Liu 2018 [37]	1.06	0.18	55	1.15	0.25	60	2.0% -	0.09 [-0.17, -0.01]	
Martincich 2012 [38]	1.05	0.975	40	1.11	0.7	40	0.1%	-0.06 [-0.43, 0.31]	
Nakajo 2010 [41]	0.97	0	32	0.89	0	12		Not estimable	
Okuma 2020 [42]	0.54	0.2	82	0.63	0.14	6	0.9%	-0.09 [-0.21, 0.03]	
Orgue 2022 [43]	0.84	0.3	108	0.94	0.09	25	2.8% -	0.10 [-0.17, -0.03]	
Cin 2023 Erect Or 1	0.86	0 126	61 00	0.9	0 169	49	5 20/	Not estimable	
Qin 2023 Front Uncol	46] 1 02/	0.126	80	0.979	0.103	15	0.2% · 1.1%	-0.13 [-0.20, -0.10]	
Qin 2023 JMRI	47]1.026	0.252	95	1,102	0.24	62	2.0%	-0.08 [-0.15 0.00]	<u> </u>
Ren 2019 [48]	1.14	0.17	91	0.99	0.17	216	7.1%	0.15 [0.11, 0.19]	
Roknsharifi 2019 [49]	1.083	0	56	1.1112	0	12		Not estimable	
Sharma 2016 [50]	0.99	0.14	93	1.02	0.16	92	6.6%	-0.03 [-0.07, 0.01]	
Shen 2018 [51]	1.09	0.14	44	1.12	0.15	27	2.5%	-0.03 [-0.10, 0.04]	
Suo 2017 [54]	0.63	0.14	27	0.69	0.11	22	2.5%	-0.06 [-0.13, 0.01]	
Suo 2019 [53]	0.82	0.14	81	0.92	0.15	53	4.8% -	0.10 [-0.15, -0.05]	
Tanışman 2023 [57]	0.99	0 11	70	1.08	0	10	E 29/	Not estimable	
Wang 2022 [58]	0.713	0.17	74	0.70	0.09	34	2.6%	0.05 [-0.10, -0.00]	
Yang 2021 [59]	0.83	0.11	104	0.84	0.13	61	8.2%	-0.01 [-0.05, 0.03]	
Yuan 2019 [60]	0.882	0.0825	145	0.883 0	.1645	51	5.6%	-0.00 [-0.05, 0.05]	+ 1
Zhao 2018 [61]	0.96	0.4	72	0.79	0.16	47	1.2%	0.17 [0.07, 0.27]	
Total (95% CI)			3426		,	1690 '	100.0% -	0.03 [-0.04, -0.02]	•
Heterogeneity: Chi ² = 1	62.92, df =	= 34 (P <	0.0000	1); I ² = 799	Yo .				-0.5 -0.25 0 0.25 0.5
A rest for overall effect: 2	. = 0.04 (P	< 0.0000	51)						
	Po	ositive		N	egative			Mean Difference	Mean Difference
Study or Subgroup	Po Mean	ositive SD	Total	Ne Mean	egative SD	Total	Weight	Mean Difference IV, Fixed, 95% CI	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13]	Po Mean 0.4	ositive SD 0.14	Total 80	Nean 0.47	egative SD 0.13	Total 21	Weight 3.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14]	Po Mean 0.4 1.01	ositive SD 0.14 0	Total 80 43	Nean 0.47 0.968	egative SD 0.13 0	Total 21 18	Weight 3.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16]	Po Mean 0.4 1.01 1.138	0.14 0.272	Total 80 43 39	Nean 0.47 0.968 1.002	egative SD 0.13 0 0.211	Total 21 18 31	Weight 3.3% 1.0%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17]	Po Mean 0.4 1.01 1.138 0.9	0.14 0.272 0.17	Total 80 43 39 92	Nean 0.47 0.968 1.002 0.87	egative SD 0.13 0 0.211 0.17	Total 21 18 31 30	Weight 3.3% 1.0% 2.7%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2022 [18]	Po Mean 0.4 1.01 1.138 0.9 0.96	0.14 0.272 0.17 0.21	Total 80 43 39 92 158	No Mean 0.47 0.968 1.002 0.87 0.92	egative SD 0.13 0 0.211 0.17 0.25	Total 21 18 31 30 56	Weight 3.3% 1.0% 2.7% 2.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [18] Cho 2016 [19] Output De De De	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47	0.14 0.272 0.17 0.21 0.83	Total 80 43 99 92 158 22	No Mean 0.47 0.968 1.002 0.87 0.92 1.43	0.13 0.211 0.25 0.46	Total 21 18 31 30 56 23	Weight 3.3% 1.0% 2.7% 2.5% 0.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.35, 0.43]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Che 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Chen 2021 [20]	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888	0.14 0.272 0.17 0.21 0.83 0.148	Total 80 43 39 92 158 22 155	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 0.928	0.13 0.211 0.25 0.46 0.171	Total 21 18 31 30 56 23 135	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 WJSO [21] Enero 2022 [24]	Pc Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31	0.14 0.272 0.17 0.21 0.83 0.148 0 0.42	Total 80 43 99 92 158 22 155 74 65	Nean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45	egative SD 0.13 0.211 0.17 0.25 0.46 0.171 0 0.3	Total 21 18 31 30 56 23 135 43	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.35, 0.43] -0.04 [-0.08, -0.00] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [18] Cho 2016 [19] Choi 2012 WJSO[21] Feng 2022 [24] Feng 2022 [24] Penge 2012 [26]	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03	0.272 0.14 0.272 0.17 0.21 0.83 0.148 0 0.42 0.12	Total 80 43 39 92 158 22 155 74 65 74	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1	egative SD 0.13 0.211 0.25 0.46 0.171 0 0.3 0.135	Total 21 18 31 30 56 23 135 43 135 43	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.00] Not estimable -0.14 [-0.33, 0.05] 0.07 [0.12, 0.02]	Mean Difference IV, Fixed, 95% C1
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BAIR [20] Choi 2014 BAIR [20]	Pc Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91	0.14 0.272 0.17 0.21 0.83 0.48 0.42 0.12 0.21	Total 80 43 39 92 158 22 155 74 65 73 110	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1	egative SD 0.13 0.211 0.25 0.46 0.171 0 0.3 0.135 0.19	Total 21 18 31 30 56 23 135 43 135 43 13 34 30	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.35, 0.43] -0.04 [-0.08, -0.00] Not estimable -0.14 [-0.33, 0.05] -0.07 [-0.12, -0.02]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BAR [20] Iima 2021 [26] Iima 2021 [3]	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.42 0.12 0.21	Total 80 43 39 92 158 22 155 74 65 73 110 73	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1 1 1	egative SD 0.13 0.211 0.17 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18	Total 21 18 31 30 56 23 135 43 135 43 13 34 30 26	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.14] 0.00] Not estimable -0.14 [-0.22, -0.02] -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] -0.12 [-0.22, -0.04] -0.14 [-0.20, -0.04]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2022 [18] Chen 2021 [17] Choi 2012 BJR [20] Choi 2012 WJSO [21] Feng 2022 [24] Ilowa 2018 [27] Iima 2018 [27] Iima 2011 [28] Jaho 2011 [28]	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.422 0.21 0.148 0 0.148 0 0.148 0 0.148 0	Total 80 43 99 158 22 155 74 65 73 110 73 73	Mean 0.47 0.968 1.002 0.87 0.928 1.01299 1.43 0.928 1.01299 1.45 1.1 1 1 0.987	spative SD 0.13 0 0.211 0.17 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18	Total 21 18 31 30 56 23 135 43 13 34 30 26 40	Weight 3.3% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.02, 0.26] 0.01 [-0.12, 0.02] -0.07 [-0.12, 0.02] -0.09 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable	Mean Difference IV, Fixed, 95% C1
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BUR [20] Iima 2018 [27] Iima 2011 [23] Jeh 2011 [23]	Po Mean 0.4 1.01 1.138 0.99 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962 0.88	SD 0.14 0 0.272 0.17 0.210 0.83 0.148 0 0.42 0.12 0.21 0.21 0.21 0.216	Total 80 43 99 158 22 155 74 65 73 110 73 73 47	Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1 1 1 1 0.987 0.95	egative SD 0.13 0.211 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18	Total 21 18 31 30 56 23 135 43 13 34 30 26 40 34	Weight 3.3% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43] -0.01 [-0.12, -0.02] -0.09 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BAIR [20] Iima 2014 [21] Iima 2018 [27] Jima 2018 [23] Jeh 2011 [28] Kamitani 2013 [22] Karan 2016 [29]	Po Mean 0.4 1.01 1.138 0.99 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962 0.88 0.962	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.42 0.12 0.21 0.21 0.21 0.16	Total 80 43 39 92 158 22 155 74 65 73 110 73 73 47 50	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1 1 1 1 1 0.987 0.95 0.986	egative SD 0.13 0.211 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18 0 0.18 0	Total 21 18 31 30 56 23 135 43 13 34 30 26 40 34 20	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.20, 0.04] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] -0.07 [-0.15, 0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Lima 2018 [27] Kamitani 2013 [22] Kama 2016 [29] Kam 2009 [30]	Po Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.944 0.88 0.944 4.111	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.242 0.12 0.21 0.12 0.21 0.12 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.16 0 0.16 0	Total 80 43 39 92 158 22 155 74 65 73 110 73 73 47 50 47	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 1.01299 1.45 1.1 1 1 1 0.987 0.986 0.986 0.986 0.986 0.986	Bigative SD 0.13 0.211 0.17 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18 0 0.18 0 0.18 0 0.0	Total 21 18 31 30 56 23 135 43 135 43 13 34 30 26 40 34 20 35	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.43] -0.04 [-0.03, 0.11] 0.04 [-0.08, -0.00] Not estimable -0.17 [-0.12, -0.02] -0.03 [-0.02] -0.07 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable	Mean Difference IV, Fixed, 95% C1
Study or Subgroup Arponent 2015 [13] Aydir 2018 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BLR [20] Lima 2021 [3] Jah 2011 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kama 2016 [29] Kim 2015 [31]	Pc Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962 0.88 0.962 0.88 0.964 1.11 0.792	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.42 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.21 0.18 0 0.16 0 0	Total 80 43 39 92 158 22 155 74 65 73 110 73 73 110 73 47 50 47	No Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.1 1 1 1 1 0.987 0.986 0.986 0.985 0.986 0.872	Bigative SD 0.13 0.211 0.17 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18 0 0.18 0 0.18 0 0.18 0 0.18 0 0.0	Total 21 18 31 30 56 23 135 43 13 34 30 26 40 30 26 40 34 20 35 68	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3%	Nean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43] -0.04 [-0.35, 0.43] -0.04 [-0.36, 0.00] -0.14 [-0.33, 0.05] -0.07 [-0.12, -0.02] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [18] Choi 2012 [18] Iima 2021 [28] Jima 2021 [29] Iima 2018 [27] Jima 2018 [27] Jeh 2011 [28] Kamitani 2013 [22] Karan 2016 [29] Kim 2009 [30] Kim 2016 [31] Kim 2016 [32]	Pro Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962 0.88 0.962 0.88 0.964 1.11 1.0792 1.14	SD 0.14 0 0.272 0.17 0.21 0.83 0.148 0 0.422 0.12 0.12 0.16 0 0.16 0 0	Total 80 43 39 92 158 22 155 74 65 73 110 73 47 50 47 105 172	Nean 0.47 0.968 1.002 0.87 0.92 1.43 0.928 1.01299 1.45 1.11 1 1 1 0.987 0.95 0.986 1.099 0.872 1.24	egative SD 0.13 0.211 0.17 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18 0 0.18 0 0.18 0 0.18 0 0.0	Total 21 18 31 30 56 23 31 35 43 31 34 30 26 40 0 34 20 35 68 103 35 68	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.33, 0.05] Not estimable -0.04 [-0.03, 0.12] -0.07 [-0.12, -0.02] 0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] NOT [-0.15, 0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2013 [22] Kamitani 2013 [22] Kama 2016 [23] Kim 2015 [31] Kima 2015 [32] Kitajima 2016 [32] Kitajima 2016 [32]	Pc Mean 0.4 1.01 1.138 0.99 0.966 1.47 0.888 0.9476 1.31 1.03 0.91 0.888 0.9476 1.31 1.03 0.91 0.888 0.944 1.11 0.792 1.14	SD 0.14 0.272 0.17 0.21 0.33 0.148 0 0.172 0.17 0.21 0.148 0 0.148 0 0.12 0.12 0.16 0 0 0 0.16 0 0 0 0 0 0	Total 80 43 39 92 158 22 155 74 65 74 65 73 110 73 73 3 110 73 73 47 750 0 74 7105 172	No Mean 0.968 1.002 0.87 0.922 1.43 0.928 1.01299 1.45 1.1 1 1 1 1 1 0.987 0.95 0.986 1.09 0.872 0.986 1.09 0.872 1.24 0.882	egative SD 0.13 0 0.21 0.77 0.25 0.46 0.171 0 0.3 0.135 0.19 0.18 0 0.19 0.0 0 0.09 0.090	Total 21 18 31 30 566 23 135 43 135 43 34 43 30 26 40 34 20 55 68 103 50 26	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 2.2% 2.1% 2.3%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.43] -0.04 [-0.03, -0.01] 0.04 [-0.35, 0.43] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.17, -0.01] -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.8] 0.02 [-0.03, 0.8]	Mean Difference IV, Fixed, 95% C1
Study or Subgroup Arponent 2015 [13] Aponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2018 [27] Jima 2018 [27] Jach 2011 [28] Kamitan 2013 [22] Kamitan 2013 [22] Kaman 2016 [33] Kim 2015 [31] Kim 2016 [32] Kitajima 2016 [33] Kitajima 2018 [34] Kitajima 2018 [34]	Pc Mean 1.01 1.138 0.99 0.96 1.47 0.888 0.9476 1.31 1.03 0.9476 1.31 1.03 0.947 0.88 0.944 4.1.11 0.792 1.14 0.906 0.983 0.904	SD 0.14 0 0.17 0.17 0.272 0.17 0.21 0.148 0 0.422 0.12 0.211 0	Total 80 43 399 22 158 22 155 74 65 73 110 73 73 47 50 47 75 105 172 114 43	Nx Mean 0.47 0.968 1.002 0.87 0.928 1.01299 1.43 0.928 1.01299 1.45 1.1 1 0.986 1.09 0.986 1.09 0.872 1.24 0.882 0.923	Begative SD 0.13 0 0.211 0.25 0.46 0.17 0.25 0.46 0.171 0.33 0.135 0.199 0.204 0.199	Total 21 18 31 30 56 62 33 135 43 31 34 43 30 26 40 34 20 34 20 36 8 8 103 102 300	Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 4.8% 2.1% 2.3% 4.5% 1.4%	Nean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable -0.07 [-0.13, 0.01] Not estimable 0.07 [-0.3, 0.08] 0.08 [-0.03, 0.08] 0.08 [-0.03, 0.08] 0.08 [-0.03, 0.08] 0.08 [-0.03, 0.08] 0.08 [-0.04, 0.16]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Chol 2012 [18] Iima 2012 [22] Iima 2018 [27] Jima 2018 [27] Jeh 2011 [28] Kam 2016 [29] Kim 2015 [31] Kim 2016 [32] Kitajima 2016 [33] Kitajima 2016 [34] Leb 2017 [35]	Pc Mean 0.4 1.01 1.138 0.99 0.966 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.962 0.88 0.962 0.88 0.964 1.11 0.792 1.14 0.906 0.983 0.906 6] 1.00	Solution 0.14 0 0.272 0.17 0.83 0.148 0 0.12 0.12 0.12 0.12 0.12 0.12 0.16 0 0 0.208 0.211 0.208 0.211	Total 80 43 399 22 158 22 155 74 65 73 110 73 73 47 50 47 7105 47 7172 114 43 114 43	Nk Mean 0.47 0.968 1.002 0.87 0.922 1.43 0.928 1.01299 1.45 1.1 1 1 1 0.987 0.95 0.986 1.099 0.872 1.24 0.882 0.923 0.822 1.24	2000 2000 2000 2000 2000 2000 2000 200	Total 21 18 31 30 56 23 31 35 43 34 30 26 6 40 34 20 35 5 8 80 34 20 35 102 30 102 30 102 27 7	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 0.4% 4.8% 2.3% 4.5% 1.4% 4.5% 0.9%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.03] -0.04 [-0.03, 0.01] 0.04 [-0.03, 0.03] -0.04 [-0.03, 0.03] -0.04 [-0.03, 0.03] -0.04 [-0.03, 0.03] -0.04 [-0.03, 0.04] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] NOT [-0.15, 0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] -0.02 (-0.03, 0.08] 0.04 [-0.03, 0.04] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] -0.04 (-0.16] 0.05 [-0.04, 0.16] -0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] -0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] -0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] -0.02 [-0.03, 0.08]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Iima 2018 [27] Iima 2018 [27] Jah 2011 [28] Jah 2011 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kiam 2016 [33] Kitajima 2016 [34] Kitajima 2018 [34] Linh 2021 [13] Linh 2021 [35] Linh 2021 [14]	Pc Mean 0.4 1.01 1.138 0.9 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.9476 0.88 0.944 1.11 0.792 1.14 0.906 0.983 0.906 1.07 1.07 0.983 0.906 1.08 0.965 1.07 0.983 0.906 0.983 0.906 0.983 0.906 0.966 0.947 0.91700000000000000000000000000000000000	Splitve SD 0.14 0 0.272 0.17 0.21 0.33 0.148 0 0.121 0.12 0.12 0.12 0.16 0 0.008 0.211 0.208 0.211 0.208 0.211	Total 80 43 39 92 155 74 65 73 155 74 65 73 155 74 65 73 73 73 73 73 73 73 110 5 172 114 55 5 22 23 74 73 73 73 73 73 73 73 73 73 73 73 73 73	Nk Mean 0.47 0.968 1.002 0.87 0.922 1.43 0.928 1.01299 1.45 1.1 1 1 1 1 1 0.987 0.955 0.986 1.09 0.872 1.24 0.882 0.923 0.882 1.19 1.16	egative SD 0.13 0 0.211 0.17 0.25 0.46 0.171 0 0.35 0.19 0.18 0 0 0.18 0 0 0.18 0 0 0 0.019 0.204 0.199 0.204	Total 211 18 31 30 56 62 33 135 43 31 34 40 26 40 20 35 68 8103 102 207 68 230 0102 27 7 68	Weight 3.3% 1.0% 2.7% 0.1% 9.7% 0.4% 4.8% 2.2% 2.1% 2.3% 4.5% 0.9% 2.3%	Nean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable 0.04 [-0.03, 0.40] Not estimable 0.12 [-0.20, 0.04] Not estimable	Mean Difference IV. Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2021 [23] Japath 2018 [27] Lima 2018 [27] Kamitan 2011 [28] Kamitan 2013 [22] Kamitan 2013 [22] Kaman 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2017 [35] Linh 2021 (Tuan Linh) [2] Linh 2021 (Lana Linh) [2] Nakaio 2010 [41]	Pc Mean 0.4 1.01 1.138 0.99 0.96 1.47 0.888 0.9476 1.31 1.03 0.91 0.88 0.944 4.11 0.792 1.14 0.906 0.983 0.906 6] 1.08 1.02 0.966	Splitive SD 0.14 0 0.272 0.17 0.83 0.148 0 0.42 0.121 0.18 0 0.16 0 0.201 0.201 0.202 0.201 0.211 0.222 0.122	Total 80 43 39 92 158 22 155 74 65 73 110 73 73 73 73 73 73 73 73 71 105 172 114 43 114 55 35 6	Nk Mean 0.47 0.968 1.002 0.87 0.92 1.45 1.01299 1.45 1.11 1 1 0.987 0.986 1.09 0.872 1.24 0.882 0.983 0.882 0.882 0.882 0.882 0.882 0.882 0.882 0.823	Begative SD 0.13 0 0.211 0.77 0.25 0.19 0.18 0 0.18 0 0.18 0 0.019 0.18 0 0.019 0.204 0.019 0.204 0.204 0.019 0.28 0.204 0.29 0.28 0.29 0.28 0.29 0.29 0.28 0.29 0.28 0.29 0.29 0.28 0.29 0.29 0.28 0.29 0.28 0.29 0.28 0.29 0.29 0.28 0.29 0.28 0.29 0.29 0.29 0.28 0.29	Total 21 18 31 30 56 62 33 135 56 43 43 43 34 40 26 40 35 68 80 35 68 80 30 102 27 7 68 81 81	Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 2.2% 2.1% 2.3% 4.5% 1.4% 4.5% 1.4% 4.5% 2.2%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.02, 0.40] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] Not estimable 0.01 [-0.02, 0.04] Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.02, 0.01] 0.02 [-0.03, 0.08] 0.04 [-0.02, 0.01] 0.05 [-0.01, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.01 [-0.22, 0.06]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Avdir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Ima 2018 [27] Iima 2013 [22] Karantani 2013 [22] Karan 2016 [28] Kim 2015 [31] Kim 2015 [31] Kitajima 2016 [32] Kitajima 2018 [34] Lee 2017 [35] Linh 2021 [Tuan Linh]: [37] Nakajo 2010 [41] Okuma 2020 [42]	Pc Mean 0.4 1.01 1.138 0.99 0.96 1.47 0.888 0.9476 1.31 1.03 0.917 0.888 0.944 1.11 0.792 0.888 0.944 1.11 0.792 1.14 0.9963 0.983 0.9966 0.985 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.986 0.987 0.986 0.987 0.997 0.987 0.987 0.997 0.987 0.987 0.997 0.987 0.997 0.987 0.987 0.997 0.997	Splitive SD 0.14 0 0.272 0.17 0.83 0.14 0.21 0.83 0.14 0 0.14 0.21 0.12 0.21 0.18 0 0.16 0 0 0 0 0 0 0 0 0.208 0.211 0.222 0.122 0.12 0.12 0.21	Total 80 339 92 158 74 65 73 110 73 703 717 112 114 43 114 43 114 55 35 266 79	Nu Mean 0.47 0.968 1.002 0.87 0.92 1.43 1.02 1.45 1.1 1 1 1 1 1 0.987 0.955 0.986 1.09 0.872 1.24 0.882 0.923 0.882 1.16 0.94 0.94	Begative SD 0.13 0 0.211 0.17 0.25 0.19 0.3 0.135 0.19 0.135 0.19 0.18 0 0.18 0 0.019 0.204 0.199 0.204 0.199 0.228 0.28 0.28 0.28	Total 21 18 31 30 56 43 31 35 43 31 35 43 30 26 64 40 20 35 56 88 80 34 420 30 0 102 27 68 81 81 82 9 9	Weightt 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 9.7% 2.3% 2.2% 2.3% 4.5% 1.4% 4.5% 2.3% 0.6%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.10] 0.04 [-0.03, 0.10] 0.04 [-0.03, 0.10] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable Not estimable Not estimable Not estimable 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] -0.11 [-0.22, -0.06] Not estimable 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.8] -0.11 [-0.22, -0.06] Not estimable 0.04 [-0.08, 0.22]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chol 2012 [18] Chol 2012 [18] Chol 2012 [18] Chol 2012 [18] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kamitani 2013 [22] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Lini 2021 (Tuan Linh)[2] Lini 2021 (Tuan Linh)[2] Lini 2021 (Tuan Linh)[2] Lini 2021 (14] Okuma 2020 [42]	Mean 0.4 1.01 1.138 0.9 0.967 1.47 0.888 0.9476 0.911 0.888 0.9476 0.811 0.082 0.888 0.944 1.11 0.906 0.911 0.983 0.9066 1.08 0.906 0.55 0.88	Spitive SD 0.14 0.0272 0.17 0.21 0.83 0.148 0 0.122 0.123 0.144 0 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.16 0 0 0.16 0 0.208 0.211 0.208 0.212 0.128 0.208 0.211 0.208 0.212 0.122 0.122 0.122 0.122 0.122 0.12 0.12 0.12 0.12 0.12 0.12 <td>Total 80 43 39 92 155 73 110 73 73 73 73 73 110 73 714 43 55 76 79 82 76 77 78 79 82</td> <td>NN Mean 0.47 0.968 1.002 0.87 1.43 0.928 1.43 0.928 1.1029 1.43 0.958 1.01299 1.43 0.986 1.0987 0.9862 0.928 0.928 0.928 0.923 0.872 0.923 0.822 0.923 0.822 1.16 0.94 0.94</td> <td>opgative SD 0.13 0 0.211 0.70 0.25 0.46 0.135 0.40 0.135 0.130 0.135 0.199 0.288 0.288 0.288 0.211</td> <td>Total 211 18 31 30 56 43 43 30 26 40 40 20 35 568 80 40 102 30 102 27 68 818 89 9 9</td> <td>Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 4.8% 2.1% 2.3% 4.5% 0.9% 2.2% 0.6% 3.5%</td> <td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] -0.01 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.15, 0.01] Not estimable 0.06 [-0.03, 0.88] -0.11 [-0.23, 0.01] -0.41 [-0.22, -0.06] Not estimable 0.06</td> <td>Mean Difference IV, Fixed, 95% Cl</td>	Total 80 43 39 92 155 73 110 73 73 73 73 73 110 73 714 43 55 76 79 82 76 77 78 79 82	NN Mean 0.47 0.968 1.002 0.87 1.43 0.928 1.43 0.928 1.1029 1.43 0.958 1.01299 1.43 0.986 1.0987 0.9862 0.928 0.928 0.928 0.923 0.872 0.923 0.822 0.923 0.822 1.16 0.94 0.94	opgative SD 0.13 0 0.211 0.70 0.25 0.46 0.135 0.40 0.135 0.130 0.135 0.199 0.288 0.288 0.288 0.211	Total 211 18 31 30 56 43 43 30 26 40 40 20 35 568 80 40 102 30 102 27 68 818 89 9 9	Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 4.8% 2.1% 2.3% 4.5% 0.9% 2.2% 0.6% 3.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] -0.01 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.15, 0.01] Not estimable 0.06 [-0.03, 0.88] -0.11 [-0.23, 0.01] -0.41 [-0.22, -0.06] Not estimable 0.06	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Chol 2016 [19] Choi 2012 BURS [20] Choi 2012 BURS [21] Choi 2012 WUSO [21] Feng 2022 [24] Horvat 2019 [26] Iima 2018 [27] Lima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Kama 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Linh 2021 (Tuan Lnh) [3] Qin 2023 FOR [43] Orgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43]	Pece Mean 0.4 (1001) 1.138 0.996 0.9476 1.31 1.03 0.9476 1.31 1.03 0.9476 1.31 1.03 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9466 0.9566 0.96660 0.96660 0.96660 0.96660 0.96660000000000	SD 0.14 0 0.272 0.17 0.10 0.272 0.17 0.10 0.17 0.17 0.18 0.18 0.18 0.14 0 0.42 0.12 0.12 0.16 0 0.208 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.211 0.212 0.120 0.121 0.121 0.121 0.212 0.121 0.121 0.122 0.121 0.122 0.121 0.121 0.121 0.121 0.121 0.131	Total 80 43 39 92 21 58 74 45 73 110 73 37 47 750 77 105 172 114 43 114 55 26 79 82 26 76 76	No. Mean 0.47 0.968 1.002 0.87 0.92 1.43 0.92 1.101299 0.95 0.987 1.09 0.987 0.987 0.986 0.9872 1.24 0.822 0.923 0.822 0.923 0.842 0.944 0.949 0.944 0.949	bgative SD 0.13 0 0.211 0.25 0.46 0.171 0.25 0.46 0.171 0.135 0.135 0.135 0.135 0.135 0.199 0.204 0.00 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.213 0.205 0.201 0.213 0.213 0.213 0.213 0.25 0.213 0.25 0.213 0.25 0.25 0.213 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	Total 21 18 31 300 56 23 135 43 31 34 30 26 64 8 103 102 207 8 8 8 103 102 27 7 8 8 8 18 9 9 41 1 67	Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 2.2% 2.3% 4.5% 2.3% 0.9% 2.2% 0.6% 3.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.01 [-0.12, 0.02] 0.00 [-0.17, -0.01] Not estimable -0.07 [-0.12, 0.02] Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.05 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.05 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.16] 0.05 [-0.04, 0.20] 0.06 [-0.04, 0.20] <td>Mean Difference IV, Fixed, 95% Cl</td>	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Chol 2012 BJR [20] Chol 2012 BJR [20] Chol 2012 BJR [20] Chol 2012 BJR [20] Iima 2013 [21] Jah 2011 [28] Kamitani 2013 [22] Kama 2016 [29] Kim 2016 [31] Kitajima 2018 [34] Linh 2021 [Uan Lihh] Liu 2013 [2021 [Uan Lihh] Nakajo 2010 [41] Okuma 2020 [42] Orguc 2022 [43] Qin 2023 Front Oncol] Qin 2023 Front Oncol Qin 2023 Front Oncol	Pcc Mean 0.4 1.138 0.90 0.868 0.9476 1.131 1.313 1.313 0.946 0.9476 0.9472 0.9422 1.141 0.966 0.966 0.966 0.868 0.966 0.868 0.9665 0.868 0.9658 0.868 0.9658 0.868 0.868 0.9658 0.868 0.868 0.9658 0.868 0.8688 0.8688 0.9658 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688 0.8688	Spitive SD 0.14 0 0.272 0.17 0.13 0.14 0 0.17 0.11 0.13 0.14 0 0.17 0.18 0 0.12 0.12 0.16 0 0.16 0 0.208 0.211 0.228 0.221 0.228 0.229 0.120 0.221 0.121 0.222 0.122 0.13	Total 80 43 39 92 158 65 73 110 65 73 73 73 73 73 73 73 73 73 73 73 73 73	NN Mean 0.474 0.968 0.968 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.986 0.986 0.986 0.986 0.986 0.823 0.823 0.823 0.842 0.949 0.949 0.949 0.940 0.941 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944	egative SPD 0.13 0 0.211 0.77 0.46 0.171 0 0.3 0.135 0.199 0.204 0.199 0.204 0.199 0.208 0.219 0.228 0.20 0.199 0.228 0.213 0.199 0.228 0.213 0.199 0.228 0.213 0.199 0.228 0.213 0.199 0.228 0.195 0.195 0.195 0.195 0.199 0.288 0.195 0	Total 21 18 31 300 566 23 31 35 43 43 43 40 26 40 35 568 80 30 26 81 81 81 82 9 9 41 67 21 21	Weight 3.3% 1.0% 2.7% 2.5% 0.4% 4.8% 2.3% 4.5% 0.4% 4.5% 0.9% 3.5% 3.5% 5.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.10] 0.04 [-0.03, 0.10] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.01 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] -0.01 [-0.12, -0.02] Not estimable 0.02 [-0.03, 0.08] -0.14 [-0.22, -0.06] Not estimable 0.04 [-0.08, 0.20] -0.04 [-0.12, 0.01]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chol 2012 [18] Chol 2012 [18] Chol 2012 [18] Chol 2012 [18] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Karan 2016 [29] Kim 2015 [31] Kitajima 2016 [33] Kitajima 2016 [33] Liu 2018 [37] Liu 2018 [37] Diakajo 2010 [41] Okazog [43] Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.944 0.944 0.792 1.102 0.946 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966	Spititive SD 0.14 0 0.272 0.17 0.210 0.14 0 0.14 0 0.17 0.11 0.83 0.148 0 0.12 0.21 0.10 0.208 0.211 0.208 0.211 0.208 0.212 0.19 0.131 0.236	Total 80 43 39 92 158 22 155 74 65 73 110 73 47 50 172 114 55 266 79 82 76 35 35 36	NN Mean 0.47 0.968 0.92 1.002 0.92 1.43 0.92 1.43 0.92 1.43 0.92 0.95 0.967 0.987 0.987 0.986 0.982 1.19 1.6 0.46 0.944	egative SD 0.13 0 0.211 0 0.25 0.46 0.171 0 0.135 0.135 0.135 0.135 0.135 0.135 0.135 0.135 0.130 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.13 0.02 0.02 0.02 0.02 0.02 0.13 0.02 0.02 0.02 0.02 0.22 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.28 0.15 0.28 0.28 0.28 0.28 0.15 0.15 0.28 0.2	Total 21 18 30 56 62 33 135 43 34 43 30 26 40 40 35 568 80 30 102 27 688 183 102 27 68 81 8 8 8 8 8 8 8 8 8 9 9 41 6 6 6 6 6 6 6 6 6 7 3 7 3 5 6 6 6 6 7 3 7 3 7 3 7 3 7 3 7 3 7 3 7 3	Weight 3.3% 1.0% 2.5% 0.1% 9.7% 0.4% 4.8% 2.2% 2.2% 2.3% 4.5% 0.9% 2.2% 0.6% 5.5% 5.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable -0.07 [-0.13, 0.01] Not estimable 0.02 [-0.03, 0.08] 0.04 [-0.22, -0.06] Not estimable 0.02 [-0.03, 0.08] 0.04 [-0.22, -0.06] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.3, 0.08] 0.04 [-0.22, -0.06] 0.05 [-0.04, 0.16] Not estimable 0.06 [-0.2, 0.09] 0.011 [-0.22, 0.01] -0.14 [-0.22, -0.06] Not estimable 0.06 [-0.12, 0.00] -0.06 [-0.12, 0.00] -0	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Advir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Kamitani 2013 [22] Karan 2016 [29] Kam 2019 [30] Kim 2015 [31] Kitajima 2016 [32] Kitajima 2016 [34] Lee 2017 [35] Linh 2021 (Tuan Linh)[2] Orgue 2022 [43] Orgue 2023 JMRI Cin 2023 JMRI Cin 2023 JMRI Ren 2019 [48]	Pcc Mean 0.4 1.01 1.138 0.9 0.888 0.9476 0.888 0.9476 0.888 0.962 0.966 0.962 0.962 0.966 0.962 0.966 0.966 0.966 0.966 0.966 0.966 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.02 0.966 1.13 1.13 1.14 0.966 1.13 0.966 1.13 1.13 1.13 <tr< td=""><td>Spsitive SD 0.14 0 0.722 0.177 0.211 0.42 0.14 0 0.42 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.18 0.211 0.22 0.22 0.22 0.22 0.131 0.133 0.241</td><td>Total 80 43 39 158 22 158 22 155 74 65 73 747 73 73 747 75 75 76 75 76 75 75 <tr< td=""><td>Nu Mean 0.47 0.968 1.002 0.87 1.002 0.872 1.11 0.988 1.0987 0.998 1.0987 1.11 0.986 0.986 0.986 0.987 1.24 0.872 1.24 0.823 0.823 0.823 0.849 0.949 0.944</td><td>bgative SD 0.13 0 0.211 0.77 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.13 0.135 0.135 0.135 0.13 0.135 0.135 0.13 0.135 0.13 0.135 0.199 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.285 0.485 0.28</td><td>Total 21 18 31 30 56 43 31 35 43 30 26 40 40 20 35 56 8 43 30 26 40 0 35 56 8 8 8 8 8 8 8 8 8 8 9 9 41 47 67 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td><td>Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.7% 2.1% 2.2% 2.1% 2.3% 4.5% 0.4% 4.5% 0.6% 3.5% 1.7% 2.2% 4.5% 4.5%</td><td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.23, 0.01] -0.11 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.14 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.06 [-0.12, 0.00] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00] -0.13 [-0.18, -0.08] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00] </td></tr<><td>Mean Difference IV, Fixed, 95% Cl</td></td></tr<>	Spsitive SD 0.14 0 0.722 0.177 0.211 0.42 0.14 0 0.42 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.14 0.18 0.211 0.22 0.22 0.22 0.22 0.131 0.133 0.241	Total 80 43 39 158 22 158 22 155 74 65 73 747 73 73 747 75 75 76 75 76 75 75 <tr< td=""><td>Nu Mean 0.47 0.968 1.002 0.87 1.002 0.872 1.11 0.988 1.0987 0.998 1.0987 1.11 0.986 0.986 0.986 0.987 1.24 0.872 1.24 0.823 0.823 0.823 0.849 0.949 0.944</td><td>bgative SD 0.13 0 0.211 0.77 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.13 0.135 0.135 0.135 0.13 0.135 0.135 0.13 0.135 0.13 0.135 0.199 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.285 0.485 0.28</td><td>Total 21 18 31 30 56 43 31 35 43 30 26 40 40 20 35 56 8 43 30 26 40 0 35 56 8 8 8 8 8 8 8 8 8 8 9 9 41 47 67 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8</td><td>Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.7% 2.1% 2.2% 2.1% 2.3% 4.5% 0.4% 4.5% 0.6% 3.5% 1.7% 2.2% 4.5% 4.5%</td><td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.23, 0.01] -0.11 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.14 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.06 [-0.12, 0.00] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00] -0.13 [-0.18, -0.08] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00] </td></tr<> <td>Mean Difference IV, Fixed, 95% Cl</td>	Nu Mean 0.47 0.968 1.002 0.87 1.002 0.872 1.11 0.988 1.0987 0.998 1.0987 1.11 0.986 0.986 0.986 0.987 1.24 0.872 1.24 0.823 0.823 0.823 0.849 0.949 0.944	bgative SD 0.13 0 0.211 0.77 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.171 0 0.25 0.46 0.13 0.135 0.135 0.135 0.13 0.135 0.135 0.13 0.135 0.13 0.135 0.199 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.284 0.285 0.485 0.28	Total 21 18 31 30 56 43 31 35 43 30 26 40 40 20 35 56 8 43 30 26 40 0 35 56 8 8 8 8 8 8 8 8 8 8 9 9 41 47 67 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.7% 2.1% 2.2% 2.1% 2.3% 4.5% 0.4% 4.5% 0.6% 3.5% 1.7% 2.2% 4.5% 4.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.23, 0.01] -0.11 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.14 [-0.22, -0.06] Not estimable 0.05 [-0.06, 0.20] -0.06 [-0.12, 0.00] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00] -0.13 [-0.18, -0.08] -0.11 [-0.21, 0.00] -0.11 [-0.21, 0.00]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Iima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [34] Linh 2021 (Tuan Linh)[3] Link 2021 [01] Chi 2023 JMRI Qin 2023 JMRI	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.947 0.888 0.947 0.96 0.947 0.947 0.947 0.947 0.948 0.944 1.02 0.966 <	Spsitive SD 0.14 0 0.272 0.17 0.211 0.83 0.448 0 0.148 0 0.148 0 0.148 0 0.149 0.140 0.140 0.140 0.110 0.208 0.211 0.208 0.212 0.12 0.12 0.12 0.12 0.131 0.236 0.211	Total 80 43 39 155 74 55 74 65 73 110 73 47 50 744 43 114 43 55 26 79 82 79 82 93 35 93 67 35 93 37	NN Mean 0.47 0.968 1.002 0.872 1.002 0.928 1.0129 1.10 0.972 1.11 1 0.987 0.9682 0.9862 0.9872 1.24 0.982 0.982 1.99 1.6 0.944 0.944 0.944 0.944 0.954 1.11 1.111 0.915	pegative SD SD 0.13 0.211 0.77 0.25 0.46 0.171 0.33 0.135 0.19 0.135 0.19 0.135 0.19 0.13 0.03 0.135 0.19 0.13 0.03 0.135 0.19 0.13 0.13 0.135 0.19 0.13 0.13 0.135 0.19 0.13 0.13 0.135 0.19 0.13 0.13 0.135 0.19 0.13 0.135 0.19 0.13 0.135 0.19 0.13 0.01 0.135 0.19 0.13 0.01 0.19 0.02 0.00 0.01 0.00	Total 21 18 31 300 566 233 43 300 266 80 102 27 68 102 27 68 102 27 68 102 27 68 102 27 68 102 27 68 102 27 68 102 27 68 102 27 68 102 200 240 240	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.5% 4.5% 2.3% 4.5% 0.9% 2.2% 0.6% 5.5% 2.2% 4.5% 0.5%	Mean Difference IV, Fixed, 95% CI 10.7 [Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable 0.04 [-0.08, 0.00] 0.04 [-0.08, 0.00] 0.04 [-0.08, 0.00] 0.05 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.12 [-0.20, -0.04] Not estimable 0.02 [-0.03, 0.08] 0.04 [-0.23, 0.01] 0.01 [-0.23, 0.01] 0.01 [-0.23, 0.01] 0.01 [-0.20, 0.02] 0.00 [-0.03, 0.80] 0.01 [-0.20, 0.01] 0.01 [-0.19, 0.01] 0.00 [-0.12, 0.00] 0.01 [-0.19, 0.01] 0.00 [-0.16, 0.00] 0.13 [0.08, 0.18] 0.01 estimable 0.01 estimable </td <td>Mean Difference IV. Fixed, 95% Cl</td>	Mean Difference IV. Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Chon 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2018 [27] Jima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Karan 2016 [33] Kim 2015 [31] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Luin 2021 (Tuan Linh)[3] Luin 2021 (Tuan Linh)[3] Luin 2021 (Tuan Linh)[4] Orgue 2022 [43] Orin 2023 JMRI Cin 2023 JMRI Sharma 2016 [50] Sharma 2016	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.941 1.03 0.888 0.941 0.956 0.942 1.03 0.944 0.792 1.147 0.944 1.03 0.944 1.040 0.956 0.944 1.020 0.956 0.888 0.944 1.020 0.936 0.943 0.944 1.020 1.021 1.021 1.021 1.021 1.021 1.021 1.021 1.021 1.021 1.021 1.021	Spitive SD 0.14 0.272 0.17 0.211 0.83 0.148 0.042 0.12 0.14 0 0.14 0.042 0.14 0 0.14 0 0.14 0 0.14 0 0.14 0 0.208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2208 0.2309 0.2309 0.2309 0.2314 0.232 0.234 0.234 0.234 0.234 0.234 0.234	Total 80 43 39 155 74 65 73 110 73 47 50 744 43 47 105 172 114 43 114 43 114 43 114 43 67 79 82 76 93 67 37 82 93 67 78 82 93 67 77 82 93 67 93 67	NN Mean 0.47 0.968 1.002 0.877 1.002 0.872 1.01299 1.433 0.988 0.9987 1.11 1 0.986 0.982 0.872 0.822 0.923 0.822 0.923 0.842 0.923 0.824 0.923 0.842 0.923 0.842 0.923 0.842 0.924 0.944 0.944 0.944 0.944 0.944 0.944 1.111 1 0.945 1.111 1 0.915	spatice SD SD 0.13 0 0.211 0.17 0.21 0.13 0.13 0.13 0.17 0.13 0.13 0.13 0.13 0.16 0.17 0.18 0 0.18 0 0.18 0.204 0.199 0.28 0 0.21 0.28 0 0.21 0.224 0.165 0.18 0.248 0.17 0.18 0.248 0.17	Total 21 18 30 56 23 135 43 130 26 43 300 26 400 344 300 344 200 344 200 355 68 102 27 68 18 18 18 18 19 1000	Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.1% 2.1% 2.1% 2.1% 2.3% 4.5% 1.4% 4.5% 1.4% 5.5% 1.7% 4.5% 4.5% 7.0%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.02, 0.01] Not estimable Not estimable 0.02 [-0.03, 0.08] 0.04 [-0.03, 0.08] 0.05 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.08, 0.20] 0.06 [-0.18, 0.08] 0.06 [-0.18, 0.08] 0.08 [-0.16, 0.00] 0.13 [0.08, 0.18] 0.08 [-0.16, 0.00] 0.13 [0.08, 0.18] 0.08 [-0.16, 0.00] 0.13 [0.08, 0.18] 0.08 [-0.16, 0.00]	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chol 2012 BJR [20] Chol 2012 BJR [20] Chol 2012 UNSO [21] Ima 2018 [27] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2013 [22] Kamitani 2013 [22] Kami 2016 [23] Kim 2016 [32] Kim 2016 [32] Kitajima 2018 [34] Lee 2017 [35] Linh 2021 [10] Orguc 2022 [43] Orguc 2022 [43] Orguc 2022 [43] Orguc 2023 JMRI Chin 2023 JMRI <	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.9476 0.888 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.948 0.9476 0.948 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 <td>Spittive SD 0.14 0.272 0.17 0.21 0.33 0.48 0 0.41 0.21 0.21 0.21 0.16 0 0.16 0.201 0.201 0.201 0.201 0.201 0.202 0.13 0.231 0.33 0.241 0.13 0.211 0 0.211 0.202 0.131 0.231 0.131 0.241 0.131 0.241 0.14 0.14 0.14</td> <td>Total 80 43 39 155 74 55 74 155 74 73 73 73 705 50 47 105 52 61 70 114 43 152 26 79 82 26 79 82 66 79 82 67 76 35 67 78 36 67 37 38 80</td> <td>Nu Mean 0.474 0.968 1.002 0.877 1.102 1.102 1.11 0.987 1.244 0.986 0.986 1.0987 1.11 0.986 1.0987 1.244 0.8822 0.8822 0.9964 1.11 1.011 1.011 1.021 1.122 1.121</td> <td>pgative SD SD 0.13 0.211 0.17 0.25 0.466 0.3 0.135 0.135 0.135 0.135 0.135 0.130 0.0.135 0.0.130 0.0.000 0.0.000 0.0.000 0.0.000 0.0.000 0.0.0000 0.0.000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.000000</td> <td>Total 21 18 31 30 566 40 35 568 40 30 35 68 40 35 68 30 02 27 7 68 89 9 9 411 67 21 102 27 7 68 103 30 02 27 7 68 102 30 00 35 66 103 30 23 30 30 35 66 103 35 105 56 103 105 100 100 100 100 100 100 100 100 100</td> <td>Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.8% 4.8% 2.2% 4.5% 1.4% 4.5% 0.9% 2.3% 0.6% 3.5% 5.5% 0.6% 3.5% 3.5% 3.5% 0.1%</td> <td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] -0.09 [-0.17, -0.01] 0.07 [-0.12, 0.02] -0.09 [-0.17, -0.01] -0.07 [-0.12, 0.02] -0.09 [-0.17, -0.01] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.01 [-0.12, 0.01] -0.11 [-0.22, -0.06] Not estimable 0.02 [-0.06, 0.22] -0.06 [-0.18, -0.08] -0.11 [-0.22, -0.06] Not estimable 0.01 [-0.19, -0.01] -0.02 [-0.06, 0.22] -0.05 [-0.08, 0.30] 0.13 [-0.08, 0.30] 0.14 [-0.22, -0.06] Not estimable <td>Mean Difference IV, Fixed, 95% CI</td></td>	Spittive SD 0.14 0.272 0.17 0.21 0.33 0.48 0 0.41 0.21 0.21 0.21 0.16 0 0.16 0.201 0.201 0.201 0.201 0.201 0.202 0.13 0.231 0.33 0.241 0.13 0.211 0 0.211 0.202 0.131 0.231 0.131 0.241 0.131 0.241 0.14 0.14 0.14	Total 80 43 39 155 74 55 74 155 74 73 73 73 705 50 47 105 52 61 70 114 43 152 26 79 82 26 79 82 66 79 82 67 76 35 67 78 36 67 37 38 80	Nu Mean 0.474 0.968 1.002 0.877 1.102 1.102 1.11 0.987 1.244 0.986 0.986 1.0987 1.11 0.986 1.0987 1.244 0.8822 0.8822 0.9964 1.11 1.011 1.011 1.021 1.122 1.121	pgative SD SD 0.13 0.211 0.17 0.25 0.466 0.3 0.135 0.135 0.135 0.135 0.135 0.130 0.0.135 0.0.130 0.0.000 0.0.000 0.0.000 0.0.000 0.0.000 0.0.0000 0.0.000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.0000 0.0.000000	Total 21 18 31 30 566 40 35 568 40 30 35 68 40 35 68 30 02 27 7 68 89 9 9 411 67 21 102 27 7 68 103 30 02 27 7 68 102 30 00 35 66 103 30 23 30 30 35 66 103 35 105 56 103 105 100 100 100 100 100 100 100 100 100	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.8% 4.8% 2.2% 4.5% 1.4% 4.5% 0.9% 2.3% 0.6% 3.5% 5.5% 0.6% 3.5% 3.5% 3.5% 0.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] -0.09 [-0.17, -0.01] 0.07 [-0.12, 0.02] -0.09 [-0.17, -0.01] -0.07 [-0.12, 0.02] -0.09 [-0.17, -0.01] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.01 [-0.12, 0.01] -0.11 [-0.22, -0.06] Not estimable 0.02 [-0.06, 0.22] -0.06 [-0.18, -0.08] -0.11 [-0.22, -0.06] Not estimable 0.01 [-0.19, -0.01] -0.02 [-0.06, 0.22] -0.05 [-0.08, 0.30] 0.13 [-0.08, 0.30] 0.14 [-0.22, -0.06] Not estimable <td>Mean Difference IV, Fixed, 95% CI</td>	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Kamitani 2017 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kamitani 2015 [31] Kitajima 2016 [32] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Linh 2021 (Tuan Linh) [24] Origue 2022 [43] Oin 2023 JMRI Sharma 2016 [51] Sharma 2016 [51] Sup 2017 [54]	Pec Mean 0.4 1.01 1.138 0.96 0.888 0.946 0.947 1.11 1.03 0.944 0.942 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.92 0.966 0.955 0.888 0.944 1.11 1.03 0.966 0.966 0.956 0.944 0.926 0.946 0.966 0.972 0.972 0.972 0.976 0.977 0.976 0.9770 0.9770 0.9770 0.97700 0.97700 0.9770000000000	Spitive SD 0.14 0.022 0.772 0.14 0.021 0.83 0.148 0 0.12 0.12 0.16 0 0.16 0 0.201 0.202 0.12 0.208 0.211 0.208 0.224 0.12 0.130 0.236 0.211 0 0.236 0.211 0 0.131 0.236 0.211 0 0.131 0.236 0.211 0 0.131 0 0.14 0.17	Total 80 43 39 92 22 25 73 155 73 110 73 73 73 73 73 73 73 73 73 73 73 73 73	Ni Mean 0.47 0.968 1.002 0.87 1.002 0.928 1.01299 1.43 0.952 0.952 0.928 0.952 0.952 0.952 0.952 0.952 0.952 0.953 0.952 0.953 0.952 0.953 0.952 0.953 0.952 0.953 0.954 1.111 1 0.954 1.111 1 1.111 1 1.111 1 0.955 1.122 0.955 0.955 0.955 0.955 0.955	spative SD SO 0.13 0 0.211 0.17 0.25 0.17 0.33 0.33 0.135 0.199 0.284 0.18 0.28 0.204 0.199 0.284 0.165 0.165 0.168 0.171 0.188 0.171 0.188 0.171 0.188 0.171 0.188 0.171 0.188 0.171 0.188 0.171 0.188 0.171 0.181 0.171 0.141 0.152	Total 21 21 18 30 56 43 30 56 43 31 34 40 20 35 56 8 43 30 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 4.8% 2.2% 2.3% 4.5% 1.4% 4.5% 5.5% 5.5% 4.5% 5.5% 4.5% 5.5% 4.5% 5.5% 4.5% 5.5%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.14 [-0.32, 0.42] 0.07 [-0.12, -0.02] -0.08 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable 0.06 [-0.03, 0.08] 0.06 [-0.03, 0.08] 0.06 [-0.03, 0.08] 0.06 [-0.03, 0.08] 0.06 [-0.02, 0.00] 0.06 [-0.12, 0.00] 0.06 [-0.12, 0.00] 0.06 [-0.12, 0.00] 0.07 [-0.15] 0.08 [-0.61, -0.00] 0.13 [-0.18, -0.08] 0.06 [-0.12, 0.00] 0.07 [-0.13 [-0.60, 0.02] 0.08 [-0.61, -0.00] 0.13 [-0.16, -0.00] 0.05 [-0.12, 0.02]	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Apponent 2015 [13] Apdir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Lima 2018 [27] Kamitani 2013 [22] Kama 2016 [29] Kim 2009 [30] Kim 2015 [31] Kitajima 2016 [32] Kitajima 2016 [32] Kitajima 2016 [33] Linh 2021 (Tuan Linh)[3] Linh 2021 (Tuan Linh)[3] Chin 2023 JMRI Qin 2023 FOR OnCOID [41] Qin 2023 JMRI Sharma 2016 [50] <	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.9476 1.31 1.31 1.31 0.988 0.9476 0.91 0.92 1.141 0.7922 1.144 0.966 0.962 0.9446 1.0722 1.144 0.983 0.966 0.555 0.9062 0.9062 0.9063 1.102 1.131 1.131 1.131 1.131 1.132 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131 1.131	Spittive SD 0.14 0.272 0.17 0.21 0.31 0.42 0.21 0.148 0 0.42 0.21 0.18 0.18 0.10 0 0.10 0 0.208 0.211 0.208 0.228 0.220 0 0.208 0.211 0.313 0.236 0.211 0.131 0.236 0.211 0.131 0.313 0.236 0.211 0 0.141 0.14 0.14 0.14 0.14	Total 80 43 39 92 158 73 73 73 73 73 73 73 73 73 73 73 73 73 73 73 7105 702 7114 43 114 43 114 43 55 355 356 799 82 93 67 37 737 38 238 80 82 80 82 80 82 80 82 80 82 82 82	Nu 0.47 0.968 1.002 0.877 1.002 0.872 1.01299 1.43 0.986 1.002 1.11 1 0.986 0.9986 0.9986 0.9986 0.9986 0.992 1.11 1 0.911 0.923 0.822 0.924 0.823 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.923 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.924 0.925 0.925 <	gative SD SD 0.13 0.211 0.77 0.25 0.466 0.171 0 0.3 0.199 0.204 0.199 0.204 0.199 0.288 0.28 0.28 0.199 0.204 0.199 0.28 0.199 0.204 0.15 0.165 0.165 0.165 0.165 0.18 0.19 0.19 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.195 0.19 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.195 0.045 0.195 0.045 0.0	Total 21 18 30 566 43 31 35 43 31 35 43 30 34 40 35 68 80 80 30 30 102 27 768 88 188 182 9 9 9 100 102 27 75 4 1 20 75 6 75 75 75 75 75 75 75 75 75 75 75 75 75	Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.1% 2.2% 2.1% 2.3% 4.5% 3.5% 5.5% 7.0% 3.1% 5.9%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.33, 0.05] -0.07 [-0.12, -0.02] 0.00 [-0.07, -0.01] Not estimable -0.07 [-0.12, -0.02] Not estimable 0.07 [-0.12, 0.02] Not estimable 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.18, -0.08] 0.06 [-0.18, -0.08] 0.06 [-0.18, -0.08] 0.01 [-0.19, -0.01] 0.03 [0.08, 0.18] Not estimable 0.02 [-0.06, 0.02] 0.03 [-0.18, -0.08] 0.01 [-0.09, 0.11] 0.02 [-0.06, 0.02] 0.05 [-0.16, 0.02] 0.05 [-0.16, 0.02]	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Feng 2022 [24] Horvat 2019 [26] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Kama 2016 [29] Kim 2016 [31] Kitajima 2016 [32] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [34] Chorgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43] Oin 2023 JMRI Chi 2023 JMRI Chi 2023 JMRI Roknsharifi 2019 [46] Roknsharifi 2019 [45] Suben 2018 [51] Suo 2017 [54] Suo 2017 [54] Suo 2017 [56] Tanisman 2055 [56]	Pcc Mean 0.4 1.01 1.138 0.9 0.888 0.947 0.888 0.947 0.966 0.9476 0.9476 0.9476 0.9482 0.9444 1.020 0.9066	Splittive SD 0.14 0.272 0.17 0.211 0.83 0.148 0 0.12 0.21 0.21 0.21 0.21 0.21 0.21 0.12 0.12 0.13 0.208 0.210 0.201 0.202 0.13 0.261 0.13 0.261 0.13 0.261 0.144 0.19 0.131 0.261 0.14 0.19 0.14 0.19 0.14 0.15 0.15 0.14	Total 80 43 92 158 74 65 73 155 73 173 173 73 73 73 73 73 73 73 73 73 73 73 73 7	NN Mean 0.47 0.968 1.002 0.872 1.002 0.928 1.0129 1.101 1 0.972 0.872 0.968 0.905 0.960 0.872 1.00 0.872 0.982 0.930 0.882 0.928 0.940 0.944 0.944 0.945 0.941 1.11 1.111 0.915 1.020 0.921 0.915 1.12 0.915 0.920 1.12 0.915 0.920 0.921 0.915 0.922 0.925 0.926 0.927	gative SD SD 0.13 0.211 0.466 0.771 0.3 0.135 0.48 0.46 0.771 0.5 0.18 0.019 0.204 0.199 0.204 0.199 0.228 0.28 0.221 0.165 0.18 0.28 0.221 0.15 0.13 0.0 0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Total 21 21 18 31 30 56 31 31 30 26 43 30 26 40 0 30 26 68 103 30 26 68 18 102 27 68 18 102 27 68 18 102 30 0 102 27 68 31 22 30 0 102 27 68 3 30 27 5 4 24 24 24 24 24 24 24 24 24 24 24 24 2	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.5% 2.4% 2.3% 4.5% 0.9% 2.2% 0.6% 5.5% 0.9% 2.2% 0.6% 5.5% 0.5% 5.5% 2.5% 0.1% 2.3% 0.1%	Mean Difference IV, Fixed, 95% CI 10,7 [+0:13, -0.01] Not estimable 0.01 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.03] 0.04 [-0.03, 0.03] 0.04 [-0.03, 0.03] 0.04 [-0.03, 0.05] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] -0.07 [-0.12, -0.02] Not estimable 0.02 [-0.03, 0.08] -0.03, 0.08] 0.04 [-0.08, 0.20] -0.01 [-0.23, 0.01] -0.01 [-0.20, 0.02] -0.01 [-0.13, 0.06] -0.01 [-0.10, 0.01] -0.06 [-0.12, 0.00] 0.13 [0.06, 0.18] Not estimable 0.00 [-0.10, 0.01] 0.00 [-0.10, 0.01] 0.00 [-0.10, 0.01] 0.00 [-0.10, 0.01] 0.00 [-0.10, 0.02] <	Mean Difference IV. Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Chen 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Kamitani 2017 [23] Kamitani 2013 [22] Kamitani 2013 [22] Kiam 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Lin 2021 (Tuan Linh) [3] Lin 2016 [32] Lin 2021 (Tuan Linh) [3] Lin 2021 (Tuan Linh) [3] Lin 2021 (Tuan Linh) [3] Lin 2023 JMRI Qin 2023 JMRI Sharma 2016 [51] Sharo 2018 [51] Suo 20	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.944 0.944 0.942 0.946 0.946 0.946 0.947 1.131 1.03 0.944 0.944 0.944 0.946 0.946 0.966 0.966 0.966 0.966 0.966 1.022 0.966 0.966 0.972 1.131 1.134 1.134 1.134 1.134 1.022 0.969 0.969 0.972*	Spittive SD 0.14 0.272 0.17 0.21 0.31 0.148 0.140 0.121 0.33 0.148 0.12 0.12 0.12 0.12 0.208 0.211 0.328 0.228 0.120 0.208 0.211 0.331 0.131 0.133 0.236 0.210 0.236 0.231 0.131 0.131 0.131 0.141 0.14 0.14 0.14 0.14 0.14 0.14	Total 80 43 39 92 21 58 22 155 57 4 46 57 74 65 77 4 75 00 73 110 73 77 50 67 79 82 26 67 93 82 76 35 36 77 82 83 86 9 93 82 27 80 82 80 82 82 80 82 82 80 82 82 80 82 82 80 82 80 82 80 82 80 80 80 80 80 80 80 80 80 80 80 80 80	Ni Mean 0.47 0.968 1.002 0.87 1.002 0.87 1.002 0.43 0.928 0.928 1.01299 1.43 0.95 0.965 0.965 0.962 0.972 0.872 0.923 0.882 0.923 0.882 0.923 0.882 0.924 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.945 0.941 1.111 1 1.021 0.945 0.945 0.945 0.945 0.946 0.941 <td>gative SD SD 0.13 0.211 0.25 0.466 0.171 0 0.35 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.15 0.165 0.18 0.124 0.15 0.18 0.124 0.15 0.15 0.125 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12</td> <td>Total 21 18 31 300 566 43 135 43 300 266 40 300 34 4200 300 300 300 300 300 277 688 188 188 188 182 41 672 19 9 9 100 333 277 54 423 203 275 423 19 56 56 56 56 56 56 56 56 56 56 56 56 56</td> <td>Weight 3.3% 1.0% 2.7% 2.7% 2.4% 2.1% 2.3% 4.5% 1.4% 4.5% 3.5% 5.5% 7.0% 3.1% 5.9% 6.0%</td> <td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.08 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.06 [-10.22, -0.06] Not estimable 0.02 [-0.03, 0.08] 0.06 [-10.22, -0.06] Not estimable 0.06 [-10.22, -0.06] Not estimable 0.06 [-0.12, -0.02] 0.06 [-0.12, -0.03] 0.08 [-0.61, -0.00] 0.13 [-0.8, -0.8] 0.08 [-0.61, -0.00] 0.13 [-0.8, -0.8] 0.06 [-0.12, -0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02]<td>Mean Difference IV, Fixed, 95% CI</td></td>	gative SD SD 0.13 0.211 0.25 0.466 0.171 0 0.35 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.204 0.15 0.165 0.18 0.124 0.15 0.18 0.124 0.15 0.15 0.125 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	Total 21 18 31 300 566 43 135 43 300 266 40 300 34 4200 300 300 300 300 300 277 688 188 188 188 182 41 672 19 9 9 100 333 277 54 423 203 275 423 19 56 56 56 56 56 56 56 56 56 56 56 56 56	Weight 3.3% 1.0% 2.7% 2.7% 2.4% 2.1% 2.3% 4.5% 1.4% 4.5% 3.5% 5.5% 7.0% 3.1% 5.9% 6.0%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.08 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.06 [-10.22, -0.06] Not estimable 0.02 [-0.03, 0.08] 0.06 [-10.22, -0.06] Not estimable 0.06 [-10.22, -0.06] Not estimable 0.06 [-0.12, -0.02] 0.06 [-0.12, -0.03] 0.08 [-0.61, -0.00] 0.13 [-0.8, -0.8] 0.08 [-0.61, -0.00] 0.13 [-0.8, -0.8] 0.06 [-0.12, -0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] <td>Mean Difference IV, Fixed, 95% CI</td>	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Advir 2018 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Ima 2018 [27] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2013 [22] Karan 2016 [28] Kim 2009 [30] Kim 2015 [31] Kitajima 2016 [32] Kitajima 2016 [32] Kitajima 2016 [33] Aktajora 2017 [35] Linh 2021 [Tuan Linh]:2 Orgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43] Cha 2023 JMRI Cha 2018 [51] Suba 2017 [54]	Pcc Mean 0.4 1.01 1.13 0.99 0.90 0.888 0.888 0.9476 0.888 0.9476 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477 0.9477	Spittive SD 0.14 0.272 0.17 0.21 0.83 0.148 0 0.42 0.21 0.14 0 0.14 0 0.42 0.21 0.16 0 0 0.01 0.22 0.12 0.22 0.12 0.22 0.12 0.22 0.12 0.22 0.12 0.131 0.131 0.14 0.15 0 0.15 0.11 0.18	Total 80 43 39 92 22 1555 74 65 73 74 65 73 74 75 105 74 74 73 73 73 73 73 73 73 73 73 73 73 73 73	Nu 0.47 0.968 1.002 0.877 0.968 1.002 0.872 1.101 0.928 1.01299 1.45 0.986 1.0987 1.11 1 0.986 0.998 1.0986 0.998 0.992 0.872 0.923 0.923 0.924 1.14 1.12 0.923 0.872 0.923 0.872 0.924 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1.12 0.956 0.922 0.976 0.768 0.768 0.768	gative SD SD 0.13 0.25 0.46 0.711 0.25 0.46 0.35 0.19 0.135 0.19 0.204 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Total 21 21 18 31 30 56 60 33 43 13 34 30 26 43 30 26 68 8 103 35 68 8 103 30 102 27 68 8 9 9 41 1 67 6 19 9 41 100 19 21 64 240 19 7 54 240 19 10 1 33 7 22 1 46 6 6 9 7 7 5 6 8 9 9 6 8 8 9 9 6 8 8 9 9 8 9 8 9 8 9	Weight 3.3% 1.0% 2.7% 2.7% 2.7% 2.1% 2.2% 2.1% 2.3% 4.5% 3.3% 4.5% 3.5% 5.5% 7.0% 3.1% 4.5% 6.0% 2.9%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] Not estimable -0.07 [-0.12, -0.02] -0.09 [-0.17, -0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] Not estimable 0.02 [-0.03, 0.08] Not estimable 0.02 [-0.03, 0.08] Not estimable 0.05 [-0.04, 0.16] 0.06 [-0.08, 0.20] -0.06 [-0.12, 0.01] -0.01 [-0.23, 0.01] -0.01 [-0.23, 0.01] -0.11 [-0.23, 0.01] -0.11 [-0.23, 0.01] -0.06 [-0.12, 0.00] -0.06 [-0.12, 0.00] -0.06 [-0.12, 0.00] -0.08 [-0.16, 0.02] -0.08 [-0.18, 0.08] -0.01 [-0.5, -0.05]	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chan 2021 [16] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Choi 2012 BL/R [20] Choi 2012 BL/R [20] Choi 2012 BL/R [20] Choi 2012 BL/R [20] Iima 2018 [21] Jima 2018 [27] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2013 [22] Kamitani 2013 [22] Kamitani 2013 [22] Kama 2016 [33] Kitajima 2016 [33] Kitajima 2016 [34] Kitajima 2016 [37] Nakajo 2010 [41] Okuma 2020 [42] Origue 2022 [43] Qin 2023 JMRI [2019 [44] Chi 2023 JMRI [2019 [44] Shen 2018 [51] Suo 2019 [53] Tanişman 2023 [57] Yang 2021 [58]	Pcc Mean 0.4 1.01 1.138 0.99 0.888 0.941 1.31 1.33 1.33 0.947 0.947 0.947 0.948 0.944 1.03 1.03 0.946 0.947 1.03 0.946 0.947 1.020 0.966 0.966 0.966 0.966 0.966 0.966 0.971 1.020 1.134 1 1.07 0.668 0.990 0.721 0.848	Spittive SD 0.14 0.272 0.17 0.21 0.21 0.31 0.148 0 0.42 0.148 0 0.148 0 0.21 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.228 0.221 0 0.211 0.220 0.221 0 0.221 0 0.211 0.220 0.221 0 0.211 0 0.221 0 0.236 0.236 0.236 0.131 0.141 0.152 0.153 0.164 0.174	Total 80 43 99 2155 74 657 74 733 1100 733 1100 733 1101 733 1102 1114 555 266 766 933 114 555 933 937 82 938 222 88 222 68 99 622 68 134	Ni Mean 0.47 0.968 1.002 0.87 1.002 0.87 1.002 0.928 1.0129 1.11 1 1.01299 1.052 0.955 0.955 0.956 0.972 1.224 0.932 0.822 0.923 0.842 0.924 0.924 0.924 0.925 0.926 0.927 1.242 0.928 0.928 0.928 0.928 0.924 0.944 0.944 0.944 0.944 0.945 0.925 0.925 0.925 0.926 0.926 0.826 0.826 0.826 <	gative SD SD 0.13 0.25 0.46 0.711 0.25 0.46 0.171 0.3 0.135 0.199 0.204 0.199 0.204 0.199 0.204 0.199 0.208 0.199 0.208 0.199 0.208 0.199 0.208 0.199 0.208 0.199 0.208 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.185 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.288 0.199 0.155 0.199 0.185 0.188 0.188 0.188 0.188 0.188 0.188 0.199 0.288 0.185 0.188 0.188 0.188 0.188 0.188 0.199 0.288 0.185 0.188 0.188 0.188 0.188 0.188 0.188 0.188 0.188 0.188 0.188 0.199 0.115 0.188 0.178 0.1788 0.188 0.188 0.1788 0.1788 0.1788 0.188 0.188 0.188 0.1788 0.1788 0.188 0.188 0.188 0.1788 0.1788 0.188 0.188 0.188 0.1788 0.1788 0.188	Total 21 118 331 305 233 1355 233 1355 233 1355 233 1355 233 1355 233 1355 233 102 277 268 818 9 41 164 240 19 1000 333 277 233 221 19 1000 333 277 240 240 277 277 277 277 277 277 277 277 277 27	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 9.7% 4.8% 2.2% 2.3% 4.5% 0.9% 2.3% 4.5% 0.9% 2.2% 0.6% 5.5% 4.5% 1.4% 4.5% 5.5% 6.0% 9.7%	Mean Difference IV, Fixed, 95% CI 10.7 [Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] -0.14 [-0.33, 0.05] -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] 0.012 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.03, 0.08] 0.05 [-0.02, 0.02] 0.06 [-0.12, 0.00] 0.01 [-0.19, -0.01] -0.06 [-0.12, 0.00] 0.01 [-0.19, -0.01] -0.02 [-0.02, 0.06] 0.01 [-0.19, -0.01] -0.02 [-0.02, 0.02] 0.01 [-0.19, -0.01] -0.02 [-0.02, 0.02] 0.01 [-0.19, -0.01]	Mean Difference IV. Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chol 2012 [18] Cho 2016 [19] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Kamitani 2017 [23] Xamitani 2013 [22] Karan 2016 [23] Kim 2015 [31] Kima 2016 [33] Kitajima 2018 [34] Luè 2017 [13] Luè 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Kitajima 2016 [33] Luè 2017 [14] Oni 2023 JMRI Qin 2023 JMRI Suo 2017 [54] Suo 2019 [53] Yang 2021 [54] Yang 2021 [56] <	Pcc Mean 0.4 1.01 1.138 0.96 1.17 0.888 0.946 1.03 0.936 0.941 0.792 1.140 0.792 0.944 1.03 1.03 0.944 1.04 0.966 0.944 1.026 0.956 0.966 0.947 1.131 1.134 1 1.07 0.666 0.982 0.990 0.721 0.811 0.721 0.824 0.990 0.721 0.844 0.844	Spittive SD 0.14 0.272 0.17 0.21 0.21 0.31 0.148 0.12 0.21 0.14 0.12 0.21 0.12 0.12 0.14 0.14 0.12 0.14 0.14 0.208 0.211 0.208 0.212 0.220 0.220 0.220 0.220 0.220 0.220 0.221 0.220 0.221 0.220 0.221 0.220 0.236 0.236 0.236 0.12 0 0.111 0.12 0.12 0.41	Total 80 43 39 92 158 22 155 74 65 73 73 73 73 70 105 172 114 43 114 455 355 356 79 82 338 677 377 37 382 22 800 622 622 628 134 60 622	No. 0.47 0.968 1.002 0.877 1.002 0.872 1.002 1.01299 1.43 0.988 1.01299 1.45 0.986 0.986 0.987 0.986 0.986 0.987 0.986 0.982 0.923 0.822 0.923 0.824 0.940 0.944 0.941 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.945 1.111 1 0.945 0.945 0.945 0.945 0.976 0.822 0.826 0.826 0.826 0.826	gative SD SD 0.13 0.25 0.46 0.711 0.25 0.46 0.175 0.135 0.199 0.288 0.028 0.145 0.165 0.146 0.145	Total 21 18 30 30 56 23 31 30 56 43 43 43 43 43 43 43 43 40 40 40 35 58 88 80 30 102 27 68 83 103 20 102 27 68 83 103 20 102 66 83 103 20 102 56 103 105 66 203 11 56 66 203 203 11 56 66 203 203 11 56 66 203 203 203 203 203 203 203 203 203 203	Weight 3.3% 1.0% 2.7% 2.7% 2.2% 2.1% 2.3% 4.5% 1.4% 4.5% 1.4% 4.5% 7.0% 3.5% 6.0% 2.9% 1.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.02, 0.40] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.03, 0.08] 0.05 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.18, -0.09] 0.01 [-0.08, 0.20] 0.03 [-0.18, -0.08] 0.01 [-0.19, -0.01] 0.03 [-0.18, -0.08] 0.01 [-0.09, 0.11] 0.02 [-0.06, 0.02] 0.03 [-0.18, -0.08] 0.01 [-0.09, 0.11] 0.02 [-0.06, 0.02] 0.05 [-0.12, 0.02] 0.06 [-0.11,	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Chan 2021 [17] Chen 2021 [17] Chen 2021 [17] Cho 2016 [19] Chol 2012 BJR [20] Feng 2022 [24] Horvat 2019 [26] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2013 [22] Kamitani 2013 [22] Kama 2016 [23] Kim 2016 [32] Kitajima 2018 [34] Lee 2017 [35] Linh 2021 [Guan Linh]; Orguc 2022 [43] Orguc 2023 JMRI Chin 2023 JMRI Shanna 2016 [50]	Pcc Mean 0.4 1.01 1.138 0.90 0.888 0.9476 0.888 0.9476 0.9376 0.9376 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.948 0.9476 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.868 0.966 0.868 0.868 0.868 0.77 0.721 0.449 0.450 0.868 0.870 0.870 0.870 0.870 0.888 0.888	SID 0.14 0 0.272 0.17 0.21 0.21 0.83 0.148 0 0.12 0.21 0.21 0.21 0.21 0.21 0.12 0.21 0.12 0.11 0.208 0.220 0.19 0.131 0.236 0.210 0.220 0.19 0.131 0.220 0.19 0.210 0.220 0.19 0.220 0.11 0.18 0.11 0.18 0.11 0.18 0.11 0.11	Total 80 80 33 39 92 22 55 55 74 65 55 73 110 73 73 74 60 74 60 74 60 74 60 74 60 74 60 73 73 73 73 73 73 71 105 114 43 35 56 66 79 92 26 26 76 39 37 73 82 22 88 82 22 88 82 22 86 86 84 60	Ni Mean 0.47 0.968 0.952 1.002 0.872 1.10 1.11 1 1.0987 0.9882 0.9872 1.244 0.882 0.987 1.24 0.882 0.928 0.882 0.928 0.882 0.928 0.882 0.928 0.882 0.928 0.882 0.928 0.928 0.882 0.928 0.934 0.944 0.944 0.944 0.945 1.11 1.111 0.915 1.12 0.925 0.926 0.776 0.826 0.77	gative SD 0.13 0.211 0.75 0.46 0.711 0.25 0.46 0.35 0.19 0.18 0 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0	Total 21 18 30 33 1355 43 34 34 30 26 40 35 68 83 00 35 68 83 00 35 68 83 00 35 68 83 00 35 68 83 00 26 68 83 00 26 62 27 27 21 1355 68 83 00 26 62 30 30 26 62 30 31 35 56 62 30 31 35 56 62 30 32 31 35 56 62 30 32 31 35 56 62 30 32 32 32 32 32 32 32 32 32 32 32 32 32	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.8% 2.2% 4.5% 1.4% 4.5% 0.9% 2.3% 4.5% 0.9% 2.2% 4.5% 0.9% 2.2% 4.5% 1.4% 4.5% 0.1% 2.3% 0.6% 0.5% 0.1%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.02] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.07, -0.01] 0.12 [-0.20, -0.04] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] Not estimable Not estimable 0.06 [-0.08, 0.20] -0.06 [-0.12, 0.01] -0.11 [-0.23, 0.01] -0.11 [-0.23, 0.01] -0.11 [-0.23, 0.01] -0.01 [-0.12, 0.02] -0.02 [-0.06, 0.22] -0.01 [-0.15, -0.05] Not estimable 0.01 [-0.15, -0.05] Not estimable 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.11, -0.01]	Mean Difference IV, Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Chan 2021 [17] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Choi 2012 BLR [20] Iima 2018 [27] Iima 2018 [27] Iima 2018 [27] Kamitani 2011 [28] Kamitani 2013 [22] Kamitani 2013 [22] Kamitani 2013 [22] Kitajima 2016 [33] Kitajima 2016 [32] Kitajima 2016 [33] Kitajima 2016 [31] Liu 2018 [37] Orin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Gin 2023 JMRI Gin 2023 JMRI Suo 2019 [53] Suo 2017 [54] Suo 2017 [54] Yang 2022 [58] Yang 2022 [58] Yang 2021 [59] Yang 2021 [59] Yang 2021 [59] <t< td=""><td>Pec Mean 0.4 1.011 1.138 0.99 0.868 0.944 0.944 0.944 0.944 0.944 1.111 0.88 0.944 0.944 1.02 0.944 1.02 0.946 0.944 1.02 0.946 0.944 1.02 0.946 0.944 1.02 0.966 0.956 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.946 0.946 0.967 0.966 0.967 0.972 0.772 0.772 0.772 0.772 0.772 0.772 0.772 0.966 0.972 0.772 0.967 0.972 0.967 0.9720 0.9720 0.9750 0.975000000000000000000000000000000000</td><td>Spittive SD 0.14 0.272 0.172 0.212 0.12 0.83 0.148 0 0.21 0.12 0.148 0 0.148 0 0.148 0 0.12 0.12 0.00 0.228 0.228 0.228 0.229 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.141</td><td>Total 80 43 39 92 158 22 155 74 65 73 1100 73 73 47 70 105 172 115 116 55 356 2 73 73 314 43 155 356 799 8 36 797 82 8 667 799 36 737 37 37 82 28 80 93 67 77 328 82 28 80 62 62 68 134 60 30011 30011 30011</td><td>Nu 0.47 0.968 1.002 0.87 1.002 0.87 1.002 1.102 0.928 1.01299 1.43 0.952 0.955 0.966 1.002 0.952 0.953 0.952 0.953 0.955 0.962 0.971 0.822 0.933 0.842 0.944 0.944 0.944 1.111 1 1.111 1 1.111 1 1.111 1.111 1.111 1.111 1.07 0.768 0.778 0.8866 0.777</td><td>gative SD 0.13 0.211 0.7 0.25 0.46 0.711 0.3 0.135 0.199 0.204 0.199 0.224 0.28 0.28 0.28 0.28 0.28 0.28 0.199 0.224 0.28 0.28 0.199 0.228 0.190 0.28 0.190 0.28 0.190 0.211 0.25 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.195 0.161 0.155 0.190 0.28 0.195 0.161 0.171 0.28 0.190 0.28 0.185 0.162 0.190 0.28 0.190 0.28 0.165 0.165 0.165 0.165 0.165 0.171 0.255 0.165 0.165 0.171 0.28 0.171 0.28 0.175 0.165 0.18 0.171 0.28 0.185 0.185 0.185 0.185 0.199 0.288 0.175 0.165 0.185 0.171 0.155 0.171 0.175 0.165 0.175 0.165 0.175 0.165 0.175 0.175 0.165 0.175 0.175 0.175 0.165 0.175 0</td><td>Total 21 11 30 56 62 33 13 53 53 53 54 30 43 43 30 43 43 30 44 00 35 56 88 80 30 0102 27 68 8103 30 102 27 68 8103 102 27 68 102 30 00 102 27 59 59 2090</td><td>Weight 3.3% 1.0% 2.7% 2.7% 2.2% 2.3% 4.5% 1.4% 4.5% 5.5% 5.5% 1.7% 5.5% 1.7% 5.5% 1.7% 2.2% 1.1% 1.4% 5.9% 1.1% 100.0%</td><td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.14 [-0.32, 0.04] -0.05 [-0.12, -0.02] -0.09 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.22, -0.06] Not estimable 0.05 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] <td>Mean Difference IV. Fixed, 95% CI</td></td></t<>	Pec Mean 0.4 1.011 1.138 0.99 0.868 0.944 0.944 0.944 0.944 0.944 1.111 0.88 0.944 0.944 1.02 0.944 1.02 0.946 0.944 1.02 0.946 0.944 1.02 0.946 0.944 1.02 0.966 0.956 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.944 1.02 0.966 0.946 0.946 0.967 0.966 0.967 0.972 0.772 0.772 0.772 0.772 0.772 0.772 0.772 0.966 0.972 0.772 0.967 0.972 0.967 0.9720 0.9720 0.9750 0.975000000000000000000000000000000000	Spittive SD 0.14 0.272 0.172 0.212 0.12 0.83 0.148 0 0.21 0.12 0.148 0 0.148 0 0.148 0 0.12 0.12 0.00 0.228 0.228 0.228 0.229 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.211 0.133 0.236 0.141	Total 80 43 39 92 158 22 155 74 65 73 1100 73 73 47 70 105 172 115 116 55 356 2 73 73 314 43 155 356 799 8 36 797 82 8 667 799 36 737 37 37 82 28 80 93 67 77 328 82 28 80 62 62 68 134 60 30011 30011 30011	Nu 0.47 0.968 1.002 0.87 1.002 0.87 1.002 1.102 0.928 1.01299 1.43 0.952 0.955 0.966 1.002 0.952 0.953 0.952 0.953 0.955 0.962 0.971 0.822 0.933 0.842 0.944 0.944 0.944 1.111 1 1.111 1 1.111 1 1.111 1.111 1.111 1.111 1.07 0.768 0.778 0.8866 0.777	gative SD 0.13 0.211 0.7 0.25 0.46 0.711 0.3 0.135 0.199 0.204 0.199 0.224 0.28 0.28 0.28 0.28 0.28 0.28 0.199 0.224 0.28 0.28 0.199 0.228 0.190 0.28 0.190 0.28 0.190 0.211 0.25 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.190 0.28 0.195 0.161 0.155 0.190 0.28 0.195 0.161 0.171 0.28 0.190 0.28 0.185 0.162 0.190 0.28 0.190 0.28 0.165 0.165 0.165 0.165 0.165 0.171 0.255 0.165 0.165 0.171 0.28 0.171 0.28 0.175 0.165 0.18 0.171 0.28 0.185 0.185 0.185 0.185 0.199 0.288 0.175 0.165 0.185 0.171 0.155 0.171 0.175 0.165 0.175 0.165 0.175 0.165 0.175 0.175 0.165 0.175 0.175 0.175 0.165 0.175 0	Total 21 11 30 56 62 33 13 53 53 53 54 30 43 43 30 43 43 30 44 00 35 56 88 80 30 0102 27 68 8103 30 102 27 68 8103 102 27 68 102 30 00 102 27 59 59 2090	Weight 3.3% 1.0% 2.7% 2.7% 2.2% 2.3% 4.5% 1.4% 4.5% 5.5% 5.5% 1.7% 5.5% 1.7% 5.5% 1.7% 2.2% 1.1% 1.4% 5.9% 1.1% 100.0%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.13] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.14 [-0.32, 0.04] -0.05 [-0.12, -0.02] -0.09 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable -0.07 [-0.15, 0.01] Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.22, -0.06] Not estimable 0.05 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.06 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] 0.05 [-0.12, 0.02] <td>Mean Difference IV. Fixed, 95% CI</td>	Mean Difference IV. Fixed, 95% CI
Study or Subgroup Arponent 2015 [13] Arponent 2015 [13] Arponent 2015 [13] Chan 2021 [14] Chen 2021 [17] Chen 2021 [17] Chen 2021 [17] Chen 2021 [18] Choi 2012 BJR [20] Choi 2012 BJR [20] Choi 2012 BJR [20] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Lima 2018 [27] Kamitani 2013 [22] Karan 2016 [29] Kam 2009 [30] Kim 2016 [31] Kim 2016 [32] Kitajima 2016 [32] Kitajima 2016 [33] Linh 2021 (Tuan Linh)[3] Linh 2021 (Tuan Linh)[3] Orgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43] Cha 2023 JMRI Cha 2023 JMRI Cha 2023 JMRI Cha 2023 JMRI Sub 2017 [54] Sub 2019 [55] Tanagan 2023 [57] Tackanagan 2023 [57] Tackanagan 2023 [57] Tacka 2019 [56] Wang 2021 [58]<	Pcc Mean 0.4 1.011 1.138 0.966 1.47 0.888 0.9476 0.888 0.9476 0.930 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9476 0.9477 1.022 0.983 0.9444 1.022 0.983 0.888 0.944 1.022 0.8445 0.822 1.131 1.024 1 1.027 0.8445 0.999 0.7 0.721 0.8445 0.8445 0.8445 0.8445	Spittive SD 0.14 0.272 0.17 0.21 0.21 0.14 0 0.14 0 0.14 0 0.12 0.21 0.14 0.14 0.14 0.14 0.14 0.14 0.16 0.208 0.221 0.222 0.122 0.122 0.122 0.131 0.134 0.14 0.14 0.14 0.14 0.12 0 0.11 0.12 0 0.11 0.12 0 0.12 0 0.12 0 0.12 0 0.12 0	Total 800 433 99 158 22 155 74 65 73 110 73 73 70 71 75 76 77 76 76 76 35 26 76 35 36 79 82 38 82 80 69 62 68 134 14 62 68 134 60 3011	Nu Mean 0.474 Mean 0.474 0.968 1.002 0.877 1.002 0.435 0.928 1.01299 1.45 0.966 1.0987 1.11 1 0.966 0.928 0.928 0.966 0.923 0.872 1.242 0.823 0.824 0.928 0.928 0.821 0.928 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.944 0.945 0.946 0.946 0.947 0.956 0.768	gative SD 0.13 0.211 0.75 0.46 0.771 0.25 0.46 0.135 0.19 0.18 0 0 0 0 0 0 0 0 0 0 0 0 0	Total 21 18 30 30 56 23 31 35 56 88 30 30 32 68 80 30 32 68 80 30 31 02 27 68 81 80 80 30 31 02 27 68 81 103 102 56 80 81 99 9 9 9 9 102 60 9 72 10 10 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 56 60 20 30 20 20 30 56 60 20 30 20 20 30 20 20 30 20 20 20 20 20 20 20 20 20 20 20 20 20	Weight 3.3% 1.0% 2.7% 2.7% 2.2% 2.2% 2.3% 4.5% 1.4% 3.5% 0.6% 3.5% 7.0% 3.5% 4.5% 1.1% 100.0%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable -0.07 [-0.13, -0.01] Not estimable 0.04 [-0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.41] 0.04 [-0.03, 0.40] Not estimable -0.07 [-0.12, -0.02] 0.09 [-0.17, -0.01] -0.12 [-0.20, -0.04] Not estimable -0.07 [-0.15, 0.01] Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.04 [-0.08, 0.08] 0.05 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.02 [-0.03, 0.08] 0.06 [-0.04, 0.16] 0.06 [-0.04, 0.16] 0.06 [-0.04, 0.16] 0.06 [-0.04, 0.16] 0.06 [-0.04, 0.06] 0.06 [-0.04, 0.06] 0.06 [-0.04, 0.06] 0.06 [-0.12, 0.00] 0.13 [-0.08, -0.08] 0.01 [-0.09, 0.11] 0.02	Mean Difference IV, Fixed, 95% Cl
Study or Subgroup Arponent 2015 [13] Arponent 2015 [14] Chang 2023 [16] Chen 2021 [17] Chen 2021 [17] Chon 2016 [19] Chol 2012 BJR [20] Feng 2022 [24] Horvat 2019 [26] Iima 2018 [27] Iima 2012 [13] Jeh 2011 [28] Kamitani 2013 [22] Kama 2016 [23] Kitajima 2018 [34] Kitagima 2016 [33] Kitajima 2016 [33] Kitajima 2017 [34] Orgue 2022 [43] Orgue 2022 [43] Orgue 2022 [43] Rokinsharif 2019 [46] Rokinsharif 2019 [49] Sharma 2016 [51] Suo 2017 [54] Suo 2017 [54] Yaang 2021 [59]	Pcc Mean 0.4 1.01 1.138 0.96 0.888 0.947 1.31 1.33 1.33 0.947 0.947 0.947 0.948 0.944 1.10 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.966 0.868 1.02 0.966 0.868 1.131 1.134 1 1.02 0.967 0.721 0.721 0.721 0.721 0.868 1.01 45.04, df (f 45.04, df (f	Spittive SD 0.14 0.272 0.17 0.21 0.21 0.21 0.31 0.42 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.12 0.12 0.13 0.208 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.210 0.211 0.212 0.210 0.211 0.211 0.211 0.211 0.211 0.211 0.211 0.211	Total 800 43 39 92 158 22 157 73 373 73 7	Ni Mean 0.47 0.968 1.002 0.872 1.0129 1.43 0.978 0.978 0.928 1.01299 1.43 0.978 0.982 0.997 0.882 0.998 0.882 1.99 0.882 0.91 1.6 0.944 0.944 0.944 0.944 0.944 0.945 0.925 1.11 1.111 0.915 1.02 0.925 0.926 0.927 0.926 0.927 0.927 0.944 0.945 0.927 0.927 0.928 0.928 0.929 0.929 0.920 </td <td>gative SD 0.13 0.211 0.77 0.45 0.46 0.171 0.3 0.135 0.19 0.28 0.28 0.248 0.199 0.284 0.199 0.284 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.118 0.180 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.18 0.18 0.18 0.18 0.199 0.268 0.18 0.18 0.18 0.18 0.199 0.268 0.171 0.18 0.18 0.18 0.18 0.199 0.268 0.171 0.18 0.18 0.18 0.18 0.18 0.199 0.268 0.117 0.168 0.18 0.18 0.18 0.18 0.18 0.199 0.268 0.117 0.014 0.19 0.199 0.268 0.117 0.014 0.019 0.014 0.019 0.014 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.019 0.014 0.019 0.019 0.014 0.019 0.009 0.019 0.014 0.019 0.009 0.009 0.009 0.019 0.009 0.014 0.009 0</td> <td>Total 21 18 30 30 56 62 33 34 30 35 56 88 40 30 20 27 68 8103 30 27 68 83 102 27 68 83 102 27 68 83 102 27 68 89 941 167 21 102 27 68 89 941 167 21 102 27 2000 2000</td> <td>Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.5% 2.4% 2.3% 4.5% 1.4% 4.5% 0.9% 2.2% 0.6% 2.3% 0.6% 2.2% 0.6% 2.5% 0.1% 1.7% 2.3% 0.5% 1.4% 4.5% 1.7%</td> <td>Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.35, 0.43] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.03] 0.04 [-0.08, 0.00] Not estimable 0.01 [-0.12, -0.02] 0.09 [-0.17, -0.01] 0.01 [-0.12, -0.02] 0.07 [-0.12, -0.02] 0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.01 [-0.19, 0.01] -0.02 [-0.02, 0.08] 0.01 [-0.19, 0.01] -0.01 [-0.19, 0.01] -0.02 [-0.02, 0.06] 0.01 [-0.19, 0.01] 0.01 [-0.19, 0.01] 0.01 [-0.02, 0.02] 0.02 [-0.02, 0.06] 0.01 [-0.03, 0.08] 0.01 [-0.03, 0.08] 0.01 [-0.01, 0.01] 0.005 [-0.12, 0.02] 0.005 [-0.12, 0.02]</td> <td>Mean Difference IV. Fixed, 95% CI</td>	gative SD 0.13 0.211 0.77 0.45 0.46 0.171 0.3 0.135 0.19 0.28 0.28 0.248 0.199 0.284 0.199 0.284 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.248 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.118 0.180 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.199 0.268 0.18 0.18 0.18 0.18 0.199 0.268 0.18 0.18 0.18 0.18 0.199 0.268 0.171 0.18 0.18 0.18 0.18 0.199 0.268 0.171 0.18 0.18 0.18 0.18 0.18 0.199 0.268 0.117 0.168 0.18 0.18 0.18 0.18 0.18 0.199 0.268 0.117 0.014 0.19 0.199 0.268 0.117 0.014 0.019 0.014 0.019 0.014 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.014 0.019 0.019 0.014 0.019 0.019 0.014 0.019 0.009 0.019 0.014 0.019 0.009 0.009 0.009 0.019 0.009 0.014 0.009 0	Total 21 18 30 30 56 62 33 34 30 35 56 88 40 30 20 27 68 8103 30 27 68 83 102 27 68 83 102 27 68 83 102 27 68 89 941 167 21 102 27 68 89 941 167 21 102 27 2000 2000	Weight 3.3% 1.0% 2.7% 2.5% 0.1% 4.5% 2.4% 2.3% 4.5% 1.4% 4.5% 0.9% 2.2% 0.6% 2.3% 0.6% 2.2% 0.6% 2.5% 0.1% 1.7% 2.3% 0.5% 1.4% 4.5% 1.7%	Mean Difference IV, Fixed, 95% CI -0.07 [-0.13, -0.01] Not estimable 0.14 [0.02, 0.25] 0.03 [-0.04, 0.10] 0.04 [-0.03, 0.11] 0.04 [-0.35, 0.43] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.01] 0.04 [-0.03, 0.03] 0.04 [-0.08, 0.00] Not estimable 0.01 [-0.12, -0.02] 0.09 [-0.17, -0.01] 0.01 [-0.12, -0.02] 0.07 [-0.12, -0.02] 0.07 [-0.15, 0.01] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.01 [-0.19, 0.01] -0.02 [-0.02, 0.08] 0.01 [-0.19, 0.01] -0.01 [-0.19, 0.01] -0.02 [-0.02, 0.06] 0.01 [-0.19, 0.01] 0.01 [-0.19, 0.01] 0.01 [-0.02, 0.02] 0.02 [-0.02, 0.06] 0.01 [-0.03, 0.08] 0.01 [-0.03, 0.08] 0.01 [-0.01, 0.01] 0.005 [-0.12, 0.02] 0.005 [-0.12, 0.02]	Mean Difference IV. Fixed, 95% CI

Fig. 2. ADC differences in breast tumors by hormone receptor status. **A:** A forest plot of mean ADC ($10^{-3} \text{ mm}^2/\text{s}$) difference reported for ER-positive and ER-negative breast tumors. Tumors with positive ER status have significantly lower ADCs compared with receptor-negative tumors. **B:** Forest plot of mean ADC ($10^{-3} \text{ mm}^2/\text{s}$) difference reported for PgR-positive and PgR-negative breast tumors. Tumors with positive PgR status exhibit significantly lower ADCs compared with PgR-negative tumors. ADC = apparent diffusion coefficient, ER = estrogen receptor, PgR = progesterone receptor, SD = standard deviation, IV = weighted mean difference, CI = confidence interval, Chi² = chi-squared test statistic, df = degrees of freedom, I² = heterogeneity statistic, Z = Z-test statistic



Study or Subaro	un	Nean	gative	Total	P	ositive	Total	Weight	Mean Difference	Mean Difference
Catalano 2017	(15)	1 303	0 121	11	1 022	0.28	10	0.3%	0 28 [0 09 0 47]	
Chang 2023	[16]	1.08	0.268	55	1.07	0.203	15	0.7%	0.01 [-0.11, 0.13]	
Chen 2021	[17]	0.91	0.15	50	0.88	0.19	72	3.1%	100.0 [00.0] 100.0	+
Chen 2022	[18]	0.96	0.21	178	0.89	0.26	36	1.4%	0.07 [-0.02, 0.16]	<u>+</u>
Choi 2012 BJR	[20]	0.911	0.158	149	0.903	0.164	141	8.1%	0.01 [-0.03, 0.05]	+
Choi 2012 WJSO	[21]	0.9223	0	67	1.0198	0	50		Not estimable	
Feng 2022	[24]	1.35	0.38	64	1.35	0.44	14	0.2%	0.00 [-0.25, 0.25]	
Guo 2021	[25]	1.093	0	75	1.142	0	30		Not estimable	
Horvat 2019	[26]	1.04	0.27	90	1.11	0.3	17	0.5%	-0.07 [-0.22, 0.08]	
lima 2018	[27]	0.92	0.27	109	1.04	0.3	31	0.8%	-0.12 [-0.24, -0.00]	
lima 2021	[3]	0.9	0.16	65	1.01	0.25	15	0.6%	-0.11 [-0.24, 0.02]	
Jen 2011	[20]	0.934	0.6905	27	1.019	0.5655	40	0.2%	-0.08 [-0.32, 0.15]	
Kim 2015	[23]	0.303	0 0305	145	0.940	0 6305	28	0.1%	-0.18 [-0.46, 0.10]	
Kim 2016	[32]	1 17	0.635	218	1 25	0.0000	57	0.1%	-0.08 [-0.25, 0.09]	
Kitaiima 2016	[33]	0.89	0.000	180	0.917	0 146	36	3.4%	-0.03 [-0.08, 0.03]	
Kitajima 2018	[34]	0.959	0.213	59	0.958	0.198	14	0.8%	0.00[-0.12, 0.12]	
Linh 2021 (Tuan Li	inh) [3	6] 1.04	0.07	26	0.98	0.03	23	12.8%	0.06 [0.03, 0.09]	-
Liu 2018	[37]	1.02	0.24	64	1.29	0.27	28	0.8%	-0.27 [-0.39, -0.15]	
Martincich 2012	[38]	1.05	0.975	152	1.08	0.71	40	0.2%	-0.03 [-0.30, 0.24]	
Nakajo 2010	[41]	0.93	0	28	0.88	0	7		Not estimable	
Okuma 2020	[42]	0.56	0.2	47	0.51	0.17	41	1.9%	0.05 [-0.03, 0.13]	<u>+</u>
Orguc 2022	[43]	0.88	0.25	98	0.95	0.17	35	2.0%	-0.07 [-0.14, 0.00]	
Park 2015	[44]	0.85	0	46	0.92	0	36		Not estimable	
Qin 2023 Front O	ncol[45] 0.88	0.161	95	0.921	0.16	48	3.6%	-0.04 [-0.10, 0.01]	
Qin 2023 JMRI	[46] 1.03	0.16	35	1.07	0.15	21	1.6%	-0.04 [-0.12, 0.04]	+
Qin 2023 JMRI	[47] 1.027	0.234	113	1.142	0.256	44	1.5%	-0.11 [-0.20, -0.03]	
Ren 2019	[48]	0.88	0.09	129	1.14	0.15	178	15.4%	-0.26 [-0.29, -0.23]	-
Roknsharifi 2019	[49]	1.086	0	46	0.915	0	9		Not estimable	
Sharma 2016	[50]	1.02	0.15	84	1.03	0.16	56	4.0%	-0.01 [-0.06, 0.04]	
Shen 2018	[51]	1.09	0.13	22	1.1	0.15	49	2.4%	-0.01 [-0.08, 0.06]	
Shin 2016	[52]	0.65	0.16	35	0.69	0.15	14	1.2%	-0.04 [-0.13, 0.05]	
Suo 2017	[54]	0.65	0.16	35	0.69	0.15	14	1.2%	-0.04 [-0.13, 0.05]	
Suo 2019	[53]	0.84	0.15	84	0.91	0.15	50	4.0%	-0.07 [-0.12, -0.02]	
Tanışman 2023	[57]	1.08	0	22	0.99	0	70		Not estimable	
Tezcan 2019	[56]	0.72	0.12	38	0.71	0.1	45	4.8%	0.01 [-0.04, 0.06]	
wang 2022	[58]	0.751	0.178	/4	0.719	0.181	34	2.1%	0.03 [-0.04, 0.11]	
Yuan 2010	[09]	0.01	0.11	122	0.00	0.11	62	0.7%	-0.07 [-0.11, -0.03]	
7bao 2018	[60] [61]	0.003	0.005	86	0.002	0.1245	33	1.4%	0.00 [-0.03, 0.03]	
2100 2010	10.1	0101	0	00	0.01	0.00			0101 [0100; 0110]	
Total (95% CI)				3214			1639	100.0%	-0.05 [-0.06, -0.04]	•
			- 0.000							
			- 0.000	.,						
Study or Subara	oup	P	ositive	Total) Mean	Negative SD	Total	Weight	Mean Difference IV, Fixed. 95% CI	Mean Difference IV, Fixed. 95% Cl
Study or Subgro	oup 2018	P Mean [12] 1.15	ositive SD 0.27	Total 38	Mean 1.2	Negative SD 0.3	Total	Weight 0.8%	Mean Difference IV, Fixed, 95% CI -0.05 (-0.17, 0.07)	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015	2018 [13]	P Mean [12] 1.15 0.42	0.27 0.16	Total 38 49	Mean 1.2 0.45	Negative SD 0.3 0.15	Total 44 26	Weight 0.8% 2.4%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018	2018 [13] [14]	P Mean [12] 1.15 0.42 0.965	0.27 0.16 0.27	Total 38 49 39	Mean 1.2 0.45 1.045	Negative SD 0.3 0.15 0	Total 44 26 22	Weight 0.8% 2.4%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017	2018 [13] [14] [15]	P Mean [12] 1.15 0.42 0.965 1.216	0.27 0.27 0.23	Total 38 49 39 9	Mean 1.2 0.45 1.045 0.904	Negative SD 0.3 0.15 0 0.24	Total 44 26 22 12	Weight 0.8% 2.4% 0.3%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017 Chang 2023	2018 [13] [14] [15] [16]	P(Mean [12] 1.15 0.42 0.965 1.216 1.131	0.27 0.23 0.277	Total 38 49 39 9 30	Mean 1.2 0.45 1.045 0.904 1.008	Negative SD 0.3 0.15 0 0.24 0.205	Total 44 26 22 12 40	Weight 0.8% 2.4% 0.3% 0.9%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021	2018 [13] [14] [15] [16] [17]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87	0.27 0.16 0.23 0.277 0.17	Total 38 49 39 9 30 98	Mean 1.2 0.45 1.045 0.904 1.008 1	Negative SD 0.3 0.15 0 0.24 0.205 0.16	Total 44 26 22 12 40 24	Weight 0.8% 2.4% 0.3% 0.9% 2.4%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022	2018 [13] [14] [15] [16] [17] [18]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92	0.27 0.16 0.23 0.277 0.17 0.12	Total 38 49 39 9 30 98 97	Mean 1.2 0.45 1.045 0.904 1.008 1 0.98	Negative SD 0.3 0.15 0 0.24 0.205 0.16 0.21	Total 44 26 22 12 40 24 117	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.7%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Choi 2012 BJR	2018 [13] [14] [15] [16] [17] [18] [20]	P Mean [12] 1.15 0.42 0.965 1.216 1.216 1.131 0.87 0.92 0.89	0.27 0.16 0.23 0.277 0.17 0.22 0.16	Total 38 49 39 9 30 98 97 178	Mean 1.2 0.45 1.045 0.904 1.008 0.98 0.933 0.963	Negative SD 0.3 0.15 0 0.24 0.205 0.16 0.21 0.122	Total 44 26 22 12 40 24 117 112	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.7% 9.2%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] -0.04 [-0.08, -0.01]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Choi 2012 BJR Choi 2012 BJR	2018 [13] [14] [15] [16] [17] [18] [20] [21]	Pr Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.89 0.9693	0.27 0.16 0.23 0.277 0.17 0.22 0.164 0.202	Total 38 49 39 9 30 98 97 178 67	Mean 1.2 0.45 0.904 1.008 1 0.98 0.933 0.9627 0.9627	Negative SD 0.3 0.24 0.205 0.16 0.21 0.152 0 0.201	Total 44 26 22 12 40 24 117 112 50	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.7% 9.2%	Mean Difference IV, Fixed, 95% cI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.13 [0.20, -0.06] -0.06 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amomsifipanitch Arponent 2015 Catalano 2017 Chang 2023 Chen 2022 Chel 2012 BJR Choi 2012 WJSO Fan 2018 Fang 2018	2018 [13] [14] [15] [16] [17] [18] [20] [21] [23]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.89 0.9693 0.9693 0.923	0.277 0.16 0.23 0.277 0.17 0.22 0.164 0.227	Total 38 49 39 9 30 98 97 178 67 88 52	Mean 1.2 0.45 1.045 0.904 1.008 1 0.983 0.9627 0.933 0.9627	Negative SD 0.3 0.24 0.205 0.16 0.21 0.152 0 0.204	Total 44 26 22 12 40 24 117 112 50 34	Weight 0.8% 2.4% 0.3% 2.4% 3.7% 9.2% 1.8%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] -0.06 [-0.12, -0.00] Not estimable -0.02 [-0.10, 0.07]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjaanitch Argonent 2015 Catalano 2017 Chang 2023 Chen 2021 Chal 2012 BJR Chal 2012 BJR Chal 2012 BJR Chal 2012 BJR Chal 2012 BJR Chal 2012 BJR Chal 2012 BJR	2018 [13] [14] [15] [16] [17] [18] [20] [21] [23] [24]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.89 0.969 0.9693 0.923 1.38	0.27 0.16 0.27 0.17 0.22 0.17 0.22 0.164 0 0.227 0.3	Total 38 49 39 9 30 98 97 178 67 88 53 70	Mean 1.2 0.45 1.045 0.904 1.008 0.933 0.9627 0.939 1.14 1.02	Negative SD 0.3 0.15 0 0.205 0.16 0.21 0.152 0 0.204 0.204	Total 44 26 22 12 40 24 117 112 50 34 25	Weight 0.8% 2.4% 0.3% 2.4% 3.7% 9.2% 1.8% 0.2%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] Not estimable 0.31 [0.11, 0.51] -0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] Not estimable -0.04 [-0.08, -0.01] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanitch Arponent 2015 Catalano 2017 Chang 2023 Chen 2021 Chen 2021 Choi 2012 BJR Choi 2012 BJR	2018 [13] [14] [15] [16] [17] [18] [20] [21] [23] [24] [26] [27]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.89 0.9693 0.923 1.38 1.38 1.05 0.91	ositive SD 0.27 0.16 0.23 0.277 0.17 0.22 0.164 0 0.227 0.3 0.227 0.3	Total 38 49 39 9 30 98 97 178 67 88 53 70 55	Mean 1.2 0.45 1.045 1.045 0.904 1.008 0.933 0.9627 0.939 1.14 1.08 0.95	Negative SD 0.3 0.15 0 0.24 0.205 0.16 0.21 0.152 0 0.204 0.204 0.57 0 0.21	Total 44 26 22 12 40 24 117 112 50 34 25 16 25	Weight 0.8% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.13 [-0.20, -0.06] -0.08 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] Not estimable -0.04 [-0.10, 0.07]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjenitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJRO Feng 2022 Horvat 2019 lima 2018 lima 2011	2018 [13] [14] [15] [16] [17] [20] [21] [23] [23] [24] [26] [27] [3]	Pr Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.923 0.9693 0.9693 0.9693 1.38 1.05 0.91	0.27 0.16 0.23 0.277 0.17 0.22 0.164 0 0.227 0.3 0.227 0.3 0 0.227 0.3 0.227	Total 38 49 39 9 30 97 178 67 88 53 70 55 85	Mean 1.2 0.45 1.045 0.904 1.008 0.930 0.9627 0.939 1.14 1.08 0.95 0.95	Negative SD 0.3 0.15 0.24 0.205 0.16 0.21 0.21 0.204 0.57 0 0.204 0.57 0 0.21 0.34	Total 44 26 22 12 40 24 117 112 50 34 25 16 25 55	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] -0.06 [-0.12, -0.00] Not estimable -0.02 [-0.10, 0.07] 0.24 [0.00, 0.48] Not estimable -0.04 [-0.13, 0.05]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsiripanilch Arponent 2015 Catalano 2017 Chang 2023 Chen 2021 Chai 2012 BJR Chai 2012 BJR Chai 2012 BJR Chai 2012 BJR Chai 2012 BJR Feng 2022 Horvat 2019 Iima 2018 Iima 2018	2018 [13] [14] [15] [16] [17] [20] [21] [23] [24] [24] [24] [27] [3] [28]	Pr. Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.9693 0.9693 0.9693 1.38 1.05 0.91 0.95 0.97	0.277 0.16 0.23 0.277 0.17 0.22 0.164 0 0.227 0.3 0 0.227 0.3 0 0.177 0.27 0.3 0 0.277 0.3 0 0.277 0.3 0 0.277 0.16 0.277 0.17 0.227 0.16 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.17 0.277 0.177 0.277 0.277 0.277 0.177 0.277 0.3 0 0.277 0.277 0.277 0.3 0 0.2770 0.2770 0.2770000000000	Total 38 49 39 9 30 97 178 67 88 53 70 55 85 59	Mean 1.2 0.45 1.045 0.904 1.008 1 0.98 0.933 0.9627 0.939 1.14 1.08 0.95 0.92 0.962	Negative SD 0.3 0.15 0.24 0.205 0.16 0.21 0.152 0 0.204 0.57 0 0.21 0.21 0.21 0.37 0 0.21 0.37	Total 44 26 22 12 40 24 117 112 50 34 25 16 25 55 48	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.8% 0.2% 1.8% 0.2%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable -0.03 [-0.20, -0.06] -0.08 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] -0.04 [-0.08, -0.01] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Argin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Choi 2012 WJSO Fang 2018 Horvat 2019 Iima 2018 Iima 2021 Jeh 2011 Kim 2015	2018 [13] [14] [15] [17] [17] [20] [21] [23] [24] [24] [24] [27] [3] [28] [31]	Pr Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.923 0.993 0.9693 0.923 1.38 1.05 0.91 0.95 0.971 0.771	0.277 0.16 0.23 0.277 0.17 0.22 0.164 0.227 0.3 0.227 0.3 0.227 0.3 0.227 0.3 0.227 0.3 0.227 0.3 0.227 0.3 0.227 0.16 0.227 0.17 0.227 0.16 0.227 0.17 0.227 0.277 0.17 0.227 0.277 0.17 0.227 0.17 0.227 0.17 0.227 0.17 0.227 0.277 0.17 0.227 0.277 0.277 0.277 0.277 0.277 0.277 0.227 0.277 0.227 0.277 0.227 0.2770 0.2770 0.2770000000000	Total 38 49 39 930 98 97 178 67 88 53 70 55 85 59 124	Mean 1.2 0.45 1.045 0.904 1.008 0.933 0.9627 0.939 1.14 1.08 0.95 0.92 0.965 0.955	Negative SD 0.3 0.24 0.205 0.16 0.21 0.152 0 0.204 0.204 0.57 0 0.204 0.21 0.24 0.34 0 0	Total 44 26 22 40 24 117 112 50 34 25 16 25 55 8 49	Weight 0.8% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] Not estimable -0.02 [-0.10, 0.04] Not estimable -0.04 [-0.13, 0.05] Not estimable Not estimable Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjeantich Argonent 2013 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Feng 2022 Horvat 2019 lima 2018 lima 2021 Jah 2011 Kim 2016	2018 [13] [14] [15] [16] [17] [21] [22] [24] [26] [27] [3] [28] [31] [32]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.9693 0.9693 0.9693 0.9693 1.38 1.05 0.91 0.95 0.971 0.971 1.17	0.277 0.164 0.223 0.277 0.17 0.222 0.164 0 0.227 0.3 0 0.177 0.27 0.3 0 0.177 0.27 0.3 0 0.177 0.27	Total 38 49 39 9 30 98 97 178 67 88 53 70 55 85 59 124 214	Mean 1.2 0.45 1.045 1.045 1.008 0.933 0.9627 0.939 1.14 1.08 0.955 0.92 0.963 0.955 1.2	Negative SD 0.3 0.15 0.205 0.205 0.204 0.21 0.204 0.57 0 0.204 0.57 0 0.21 0.34 0.34 0 0	Total 44 26 22 12 40 24 117 112 50 34 25 16 25 55 48 9 9	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] -0.12 [0.01, 0.24] -0.12 [0.01, 0.24] -0.12 [-0.20, -0.06] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.08, 0.05] Not estimable Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanitch Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Chei 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horvat 2019 lima 2018 lima 2021 Jah 2011 Kim 2015 Kinajuna 2016	2018 [13] [14] [15] [16] [17] [21] [22] [24] [26] [27] [3] [28] [31] [32] [33]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.899 0.9693 0.923 1.38 1.05 0.971 0.95 0.971 0.771 1.17 0.865	Desitive SD 0.27 0.16 0 0.23 0.277 0.22 0.22 0.22 0.22 0.22 0.22 0.2	Total 38 49 9 30 98 9 30 98 9 30 98 8 53 70 7178 88 53 70 55 55 59 124 214 214 215 25 25 25 25 25 25 25 25 25 2	Mean 1.2 0.45 1.045 0.904 1.045 0.933 0.9627 0.939 1.14 1.08 0.955 1.22 0.963 0.955 1.22 0.972	Negative SD 0.3 0.15 0.205 0.16 0.21 0.204 0.57 0 0.204 0.57 0 0.204 0.57 0 0.21 0.34 0 0 0.213	Total 44 26 22 12 40 24 117 117 50 34 25 55 55 48 49 61 60	Weight 0.8% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.11, 0.51] 0.12 [-0.10, 0.04] -0.13 [-0.20, 0.06] -0.13 [-0.20, 0.06] -0.04 [-0.10, 0.07] Not estimable -0.02 [-0.10, 0.07] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kitajima 2016 Kitajima 2018	2018 [13] [14] [15] [16] [17] [20] [21] [23] [24] [26] [27] [3] [28] [31] [32] [33] [34]	P Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.922 0.899 0.9693 0.923 1.38 1.05 0.921 0.95 0.911 0.771 1.77 0.855 0.922	SD 0.27 0.27 0.16 0 0.23 0.27 0.17 0.22 0.164 0 0.177 0.27 0.3 0 0.177 0.27 0 0 0 0 0 0 0 0 0.177 0	Total 38 49 39 9 30 98 97 178 67 78 88 53 70 55 59 124 214 156 46	Mean 1.2 0.45 1.045 0.904 1.008 0.939 1.14 1.08 0.955 0.92 0.963 0.955 1.2 0.972 1.011	Negative SD 0.3 0.15 0.205 0.16 0.21 0.152 0 0.257 0 0.21 0.21 0.21 0.21 0.21 0.21 0.213	Total 44 26 22 12 40 24 117 112 50 34 25 16 25 55 48 49 9 61 60 27	Weight 0.8% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 1.3%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] Not estimable 0.31 [0.11, 0.51] 0.12 [0.01, 0.24] Not estimable -0.02 [-0.10, 0.04] Not estimable Not estima	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjaantich Argonent 2015 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Choi 2012 WJSO Chor 2022 Choi 2012 BJR Choi 2012 BJR Feng 2022 Horvat 2019 Iima 2018 Iima 2018 Kim 2016 Kitajima 2018 Kitajima 2016	2018 [13] [14] [15] [16] [17] [20] [21] [23] [24] [26] [27] [3] [31] [32] [33] [32] [33] [34]	Pr Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.969 0.9693 0.923 1.05 0.923 1.05 0.971 0.971 0.971 1.17 0.865 0.928 1.12	SD SD 0.27 0.16 0 0.23 0.277 0.17 0.22 0.164 0 0.227 0.163 0 0.227 0.164 0 0.227 0.30 0 0.177 0 0.277 0.177 0 0.277 0.177 0.277 0.177 0.277 0.277 0.277 0.277 0.277 0.277 0.271 0.272 0.202 0.202 0.24	Total 38 49 39 9 30 98 97 178 67 68 53 70 55 59 124 214 156 6 73	Mean 1.2 0.45 1.045 0.904 1 0.933 0.9627 0.939 1.14 1.08 0.955 0.922 0.963 0.955 1.2 0.972 1.011 1.12	Negative SD 0.3 0.24 0.205 0.16 0.21 0.152 0 0.204 0.57 0 0.204 0.57 0 0.214 0.34 0 0 0.214 0.31	Total 44 26 22 12 40 24 117 112 55 34 25 55 55 55 55 55 48 49 61 60 0 27 9	Weight 0.8% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 0.3%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.04] Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Fang 2018 Horvat 2019 Iima 2018 Iima 2019 Jah 2011 Kim 2015 Kitajima 2016 Kitajima 2018 Lee 2017 Linh 2021 (Tuan L	2018 [13] [14] [15] [16] [21] [23] [24] [32] [33] [34] [35] [35]	Pr Mean [12] 1.15 0.42 0.965 1.216 1.31 0.87 0.9693 0.9693 0.9693 0.923 1.38 1.05 0.931 0.923 1.38 1.05 0.971 0.771 1.17 0.865 0.928 1.12 36] 0.93	Spositive SD 0.27 0.16 0 0.23 0.277 0.17 0.22 0.164 0 0.277 0.177 0.23 0.277 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.270 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.277 0.177 0.270 0.214 0.224 0.24 0.24 0.24	Total 38 49 39 9 9 9 8 97 7 7 88 53 70 0 88 55 55 85 55 85 55 85 55 124 214 156 46 7 33 3	Mean 1.2 0.45 1.045 0.930 0.9627 0.933 0.9627 0.933 0.9627 0.933 0.9625 1.24 0.922 0.925 1.2 0.972 1.011 1.12 1.12	Negative SD 0.3 0.24 0.205 0.24 0.21 0.21 0.204 0.204 0.204 0.204 0.204 0.204 0.213 0.34 0.213 0.214 0.31 0.213	Total 44 26 22 12 40 24 117 112 50 34 25 55 55 55 55 8 49 61 60 27 9 16	Weight 0.8% 2.4% 0.3% 0.2% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 1.3% 0.3% 7.3%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.03 [-0.11, 0.51] 0.13 [-0.20, 0.06] -0.06 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] Not estimable 0.03 [-0.06, 0.14] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjenitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Chol 2012 BJR Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Choi 2012 BJR Feng 2022 Horvat 2019 Jima 2018 Iima 2018 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Linb 2021 (Tuan L Linb 2021 (Tuan L	2018 [13] [14] [15] [16] [21] [23] [24] [32] [32] [32] [33] [34] [35] [37]	P. Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.923 0.993 0.993 1.38 1.05 0.911 0.971 0.771 1.17 0.865 0.923 1.38 1.25 0.913 0.713 0.714 1.17 0.865 0.924 0.914 0.714 0.714 1.175 0.925 0.913 1.25 0.923 1.38 1.25 0.923 1.38 1.38 1.55 0.914 0.975 0.915 0.923 1.38 0.915 0.915 0.915 0.915 0.923 1.38 0.915 0.915 0.923 1.38 0.915 0.915 0.915 0.923 1.38 0.915 0.915 0.923 1.38 0.955 0.915 0.923 1.38 0.955 0.921 0.971 0.925 0.923 1.155 0.925 0.915 0.925 0.925 0.925 0.915 0.925 0.935 0.935 0.955 0	Desitive SD 0.27 0.16 0.23 0.277 0.7 0.22 0.164 0 0.227 0.22 0.164 0 0.23 0.23 0.21 0.22 0.164 0 0.23 0.23 0.27 0.22 0.24 0.23 0.27 0.22 0.24 0.27 0.22 0.27 0.22 0.27 0.27 0.22 0.27 0.22 0.27 0.27	Total 38 39 99 97 178 68 53 70 68 55 59 124 156 46 73 33 40	Mean 1.2 0.45 0.904 1.045 0.904 1.005 0.939 1.14 0.988 0.955 1.2 0.9627 0.939 1.14 1.088 0.955 1.2 0.955 1.2 1.011 1.121	Negative SD 0.3 0.15 0 0.24 0.25 0.161 0.211 0.152	Total 44 26 22 12 40 24 117 112 50 34 25 55 48 49 61 60 27 9 9 16 19	Weight 0.8% 2.4% 0.3% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 7.3% 7.3%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] 0.12 [0.01, 0.24] -0.12 [0.01, 0.24] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.08, -0.01] Not estimable Not estimable Not estimable Not estimable Not estimable -0.08 [-0.18, 0.02] 0.08 [-0.18, 0.02] 0.00 [-0.21, 0.21] -0.24 [-0.24, 0.22] 0.03 [-0.26, 0.14]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanitof Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Chel 2012 BJR Chel 2012 BJR Chel 2012 WJSO Fan 2018 Feng 2022 Horval 2018 lima 2018 lima 2018 lima 2018 Kina 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2017 Linh 2021(Tuan L Liu 2017	2018 [13] [14] [15] [16] [21] [21] [24] [26] [27] [3] [32] [33] [33] [33] [35] [35] [37] [35]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.131 0.87 0.92 0.993 1.38 1.05 0.923 1.38 1.05 0.971 0.771 1.17 0.865 0.928 1.12 0.928 1.12 0.93 1.15 1.05	Desitive SD 0.27 0.16 0.23 0.277 0.17 0.22 0.164 0 0.227 0.22 0.164 0 0.227 0.3 0 0.164 0 0.23 0.202 0.164 0 0 0.23 0.277 0.17 0.22 0.24 0.040 0 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.23 0.277 0.16 0.22 0.277 0.16 0.22 0.277 0.16 0.22 0.277 0.16 0.22 0.277 0.16 0.22 0.277 0.22 0.277 0.16 0.22 0.277 0.22 0.277 0.16 0.23 0.277 0.22 0.277 0.22 0.277 0.16 0.23 0.277 0.22 0.277 0.177 0.22 0.16 0.03 0.277 0.177 0.22 0.16 0.02 0.23 0.277 0.177 0.22 0.014 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.0	Total 38 49 39 9 30 98 9 30 98 98 9 30 98 85 57 178 67 67 88 53 70 55 59 124 214 156 67 33 3 3 3 3	Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.939 1.14 1.08 0.955 1.2 0.955 1.2 0.972 0.972 1.2 1.011 1.12 1.011 1.21 1.03 0.955 1.2 1.011 1.12 1.012 1.12 1.012 1.12 1.015 1.2 1.02 1.2 1.2 1.02 1.2 1.02 1.2 1.02 1.2 1.2 1.2 1.02 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.	Negative SD 0.33 0.15 0.205 0.205 0.205 0.204 0.201 0.57 0 0.204 0.34 0 0.34 0.34 0.34 0.31 0.34 0.31 0.34 0.34 0.34 0.34 0.34 0.34 0.35 0.34 0.35 0.34 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.34 0.35	Total 44 26 22 12 40 24 117 112 55 55 55 55 55 55 55 60 27 9 16 60 27 9 16 60 27 9 16	Weight 0.8% 2.4% 0.3% 2.4% 0.9% 2.4% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 0.2% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.03 [0.11, 0.51] 0.13 [-0.20, 0.005] -0.08 [-0.12, 0.000] -0.04 [-0.18, -0.01] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Fang 2022 Horvat 2019 Jima 2018 Jima 2018 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2018 Lee 2017 Linh 2021 (Tuan L Liu 2018 Martincich 2012 Martincich 2012	2018 [13] [14] [15] [16] [17] [21] [21] [22] [24] [22] [23] [24] [22] [33] [33] [33] [34] [35] [37] [38] [39]	P. Mean [12] 1.15 1.216 1.216 1.216 1.216 1.216 1.216 1.216 0.923 0.9693 0.923 1.38 1.05 0.971 0.971 0.771 1.17 0.865 0.928 1.12 0.893 0.923 1.38 1.39 0.91 0.771 1.17 0.865 0.923 1.126 0.933 1.18 1.15 1.15 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.05 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.15 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.17 1.15 1.18 1.18 1.18 1.19 1.19 1.19 1.15 1.03 1.03 1.03 1.03 1.03 1.03 1.05 1.05 1.15 1.03 1.05 1.03	0.27 0.16 0.27 0.27 0.22 0.164 0.22 0.164 0.227 0.3 0.22 0.164 0.227 0.3 0.027 0.3 0.027 0.3 0.027 0.3 0.027 0.22 0.164 0.02 0.24 0.02 0.24 0.02 0.27 0.25 0.27 0.27 0.27 0.22 0.27 0.27 0.22 0.27 0.27	Total 38 49 9 30 9 9 30 9 9 7 178 85 55 85 55 85 85 85 85 124 214 156 466 47 33 34 0 124 124 125 124 124 124 125 124 124 124 124 124 124 124 124	Mean 1.2 0.45 1.045 0.904 1.045 0.933 0.9627 0.939 1.14 1.08 0.925 0.922 0.923 1.2 0.972 1.011 1.17 1.17 1.12 0.33 0.86 0.925 0.924 0.925 1.2 0.927 1.14 1.085 0.925 0.926 0.927 0.933 0.955 1.2 0.927 0.933 0.955 1.2 0.927 0.927 0.927 0.933 0.955 1.2 0.927 0.	Negative SD 0.3 0.15 0 0.24 0.25 0.16 0.21 0.121 0.204 0.21 0.21 0.214 0.21 0.214 0.215 0.213 0.213 0.213 0.214 0.08 0.155 0 0.161	Total 44 26 22 24 117 112 25 55 55 55 55 55 8 8 9 61 60 27 9 16 9 19 21 22 27 27 27 20 24 24 25 55 55 55 25 25 25 25 26 26 26 22 20 24 24 24 26 26 26 26 26 26 26 26 26 26 26 26 26	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 0.2% 1.8% 0.2% 1.4% 1.1% 3.3% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.10, 0.24] -0.13 [-0.20, -0.06] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.10, 0.07] 0.24 [0.00, 0.48] Not estimable Not estimable Not estimable Not estimable -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.28, 0.02] -0.08 [-0.28, 0.02] Not estimable Not estimable Not estimable Not estimable Not estimable	Mean Difference IV, Fixed, 95% C1
Study or Subgro Amornsirjenitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Choi 2013 Choi 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2018 Diago 2015 Mori 2015 Olivero 62020	2018 [13] [14] [15] [16] [21] [23] [24] [26] [27] [3] [31] [32] [33] [34] [35] [37] [38] [39] [40]	Mean [12] 1.15 0.42 0.965 1.216 1.131 0.85 1.266 1.131 0.87 0.923 1.38 1.05 0.923 0.971 1.077 0.928 1.12 1.126 0.928 1.126 0.933 1.08 1.03 0.939 0.939	SD SD 0.27 0.16 0 0.27 0.17 0.222 0.144 0 0.277 0.377 0.270 0.177 0.222 0.164 0 0.177 0.202 0.244 0.202 0.244 0.266 0 0.192 0.244	Total 38 49 9 9 30 9 8 7 7 178 67 55 55 59 9 70 6 75 55 59 124 4156 466 73 33 40 1711 53 44	Mean 1.2 0.45 1.045 0.904 1.008 0.988 0.983 0.9627 0.933 0.9627 0.932 0.9555 1.2 1.011 1.12 1.031 0.952 0.922 0.9722 1.011 1.12 1.03 0.866 1.17	Negative SD 0.3 0.15 0.24 0.205 0.24 0.205 0.21 0.204 0.204 0.204 0.213 0.214 0.31 0.213 0.214 0.31 0.213 0.215 0.0 0 0.015 0.0 0.0 0.015 0.0 0.02 0.02 0.02 0.02 0.02 0.02 0.02	Total 44 26 212 12 40 24 117 117 25 55 48 49 9 61 60 27 9 16 19 21 62 24 2 42	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 9.2% 9.2% 9.2% 1.4% 1.1% 3.3% 7.3% 7.3% 7.3%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.21, 0.010] -0.04 [-0.08, -0.01] Not estimable Not estimable Not estimable Not estimable Not estimable 0.05 [-0.18, 0.02] Not estimable Not estimable Not estimable 0.01 [-0.17, -0.05] -0.06 [-0.18, 0.02] -0.06 [-0.18, 0.02] Not estimable 0.01 [-0.28, -0.21] Not estimable 0.01 [-0.28, -0.21] Not estimable 0.03 [-0.08, 0.14] Not estimable 0.03 [-0.08, 0.14] Not estimable Not estimable 0.03 [-0.08, 0.14] Not estimable Not estima	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Fang 2018 Horvat 2019 Iima 2018 Iima 2019 Iima 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2018 Martinich 2011 Martinich 2012 Molinari 2015 Okuma 2020	2018 [13] [14] [15] [16] [20] [21] [23] [24] [23] [24] [23] [31] [32] [33] [34] [35] [37] [37] [38] [39] [40]	P. Mean [12] 1.15 0.42 0.965 1.216 1.33 1.087 0.923 0.923 0.923 1.38 1.05 0.971 0.771 1.77 0.865 0.971 0.771 1.17 0.865 0.938 1.138 1.03 0.928 1.138 1.15 1.15 1.03 0.929 0.951 1.03 0.951 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.55	Solution Solution 0.27 0.16 0 0.23 0.27 0.17 0.22 0.14 0 0.277 0 0.177 0.277 0 0.192 0.244 0.04 0.266 0 0.2123 0.22 0.24	Total 38 499 9 300 97 178 86 53 37 700 55 85 55 85 55 124 214 156 46 73 33 34 40 171 53 44 40 44 40 44 40 44 40 44 40 40	Mean 1.2 0.45 1.045 0.904 1.008 1 0.983 0.9627 0.933 0.955 0.952 0.952 0.953 0.955 1.14 1.08 0.955 1.2 0.971 1.12 1.03 0.86 1.17 0.6	Vegative SD 0.3 0.5 0 0.24 0.25 0.6 0.24 0.27 0 0.24 0.57 0 0.211 0.24 0 0.213 0.213 0.213 0.214 0.031 0.04 0 0.151 0.055	Total 44 26 22 12 40 24 117 112 25 55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Weightt 0.8% 2.4% 0.3% 0.3% 3.7% 3.7% 3.7%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.11, 0.51] 0.13 [-0.20, 0.06] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjenitch Aryonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJRO Choi 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Morincich 2012 Molinari 2015 Mori 2015 Mori 2015 Okuma 2020 Orgue 2022	2018 [13] [14] [15] [17] [21] [23] [24] [23] [24] [23] [31] [32] [33] [34] [35] [37] [37] [38] [39] [40] [42] [42]	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.87 0.92 0.8993 0.923 1.38 1.05 0.953 0.951 0.971 1.17 0.865 0.924 0.95 0.971 1.17 0.865 0.923 1.12 1.38 1.05 0.924 0.95 0.971 0.971 0.95 0.971 0.971 0.95 0.971 0.95 0.971 0.95 0.971 0.95 0.971 0.95 0.971 0.95 0.971 0.95 0.95 0.953 0.953 0.953 0.953 0.955 0.955 0.955 0.955 0.957 0.955 0.957 0.958 0.957 0.957 0.957 0.958 0.957 0.957 0.958 0.959 0.957 0.957 0.958 0.959 0.957 0.958 0.959 0.957 0.958 0.959 0.959 0.957 0.958 0.959 0.959 0.959 0.959 0.957 0.959 0.959 0.959 0.959 0.957 0.958 0.959 0	SD SD 0.27 0.16 0 0.23 0.17 0.227 0.164 0 0.227 0.164 0 0.177 0.20 0.192 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.205 0.202 0.123 0.272 0.272 0.273 0.272 0.272 0.272 0.273 0.272 0.272 0.272 0.272 0.274 0	Total 38 49 9 30 98 97 178 88 57 59 124 156 46 46 41 153 33 44 171 53 44 19 27 27 27 27 27 27 27 27 27 27	Mean 1.2 0.45 1.045 0.904 1.008 0.933 0.932 1.14 1.08 0.935 1.25 0.952 1.11 1.12 1.03 0.872 1.011 1.12 0.030 0.972 1.011 1.12 0.030 0.972 0.972 0.972 1.011 1.12 0.030 0.972 0.972 1.011 1.12 0.030 0.972 0.972 0.972 0.972 0.972 0.972 1.17 1.12 0.86 0.91 0.92	Vegative SD 0.3 0.15 0.24 0.215 0.24 0.21 0.214 0.213 0.214 0.34 0 0.213 0.214 0.34 0.213 0.214 0.34 0.08 0.151 0.08 0.155 0.08 0.03 0.015 0.034 0.03 0.03 0.03 0.015 0.24 0.24 0.215 0.24 0.24 0.25 0.24 0.24 0.25 0.24 0.24 0.24 0.25 0.24 0.24 0.24 0.24 0.25 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24	Total 44 26 22 24 117 112 25 55 55 55 55 48 49 61 60 27 9 16 27 9 16 27 21 62 42 47 41	Weight 0.8% 2.4% 0.3% 0.3% 2.4% 2.4% 1.8% 0.2% 1.4% 1.1% 3.3% 1.3% 0.3% 1.1% 3.7% 4.2% 4.2% 4.4% 1.4% 3.4% 1.4% 3.4% 4.4%	Mean Difference IV, Fixed, 95% CI 0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] 0.12 [0.01, 0.24] -0.12 [0.01, 0.24] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.08, -0.01] Not estimable Not estimable Not estimable Not estimable Not estimable 0.08 [-0.18, 0.02] 0.08 [-0.18, 0.02] 0.09 [-0.27, 0.02] 0.09 [-0.27, 0.02] 0.03 [-0.08, 0.14] Not estimable Not estimable 1.01 [-0.24, 0.02] 0.03 [-0.08, 0.14] Not estimable Not estimable 1.02 [-0.27, 0.02] 0.03 [-0.08, 0.14] Not estimable Not estimable 1.01 [-0.24, -0.21] 0.05 [-0.17, -0.01] 0.05 [-0.17, -0.01] 0.05 [-0.17, -0.01] 0.05 [-0.17, -0.01] -0.05 [-0.17,	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanito Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2021 Chel 2021 Choi 2012 WJSO Fan 2018 Feng 2022 Horval 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2017 Linh 2021 (Tuan L Liu 2018 Martincich 2012 Moinari 2015 Okuma 2020 Orgue 2022 Oin 2023 Front C Din 2023 Front C	2018 [13] [14] [15] [21] [21] [21] [22] [23] [24] [27] [31] [32] [33] [34] [32] [33] [34] [35] [37] [38] [39] [40] [40] [42] [42]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.216 1.216 1.216 1.216 0.87 0.923 1.38 1.05 0.923 1.38 1.05 0.971 1.777 0.865 0.928 1.12 0.933 1.155 0.928 1.12 0.933 1.155 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.955 0.971 0.955 0.928 1.216 0.928 0.928 1.216 0.928 0.928 1.216 0.955 0.928 1.216 0.928 0.928 1.216 0.928 0.928 1.216 0.928 0.928 1.216 0.928 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.216 0.928 1.105 0.928 1.105 0.928 1.105 0.928 1.105 0.928 1.108 1.05 0.928 1.05 0.928 1.085 0.928 1.086 0.928 1.085 0.928 1.086 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.928 1.085 0.939 0.51 0.895 0.894 0.51 0.895 0.894 0.51 0.895 0.994 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.55 0.5	50000000000000000000000000000000000000	Total 38 49 9 9 8 97 178 86 67 88 67 88 53 370 55 59 124 214 4214 46 46 73 33 40 155 55 59 124 214 214 214 214 214 214 215 20 20 20 20 20 20 20 20 20 20	Mean 1.2 0.45 1.045 0.930 0.930 1.14 0.98 0.952 0.939 1.14 0.962 1.2 0.962 1.2 0.962 1.2 0.962 1.2 0.972 1.101 1.12 1.011 1.12 0.86 0.91 1.17 0.66 0.91 0.92 1.045 0.92 0.92 1.045 0.92 0.92 0.92 0.939 1.14 0.95 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92	Negative SD 0.3 0.5 0 0.204 0.57 0 0.204 0.57 0 0.211 0.34 0.204 0.57 0 0.211 0.331 0.213 0.214 0.331 0.08 0.151 0.165 0.215 0.151 0.152	Total 44 26 22 12 40 117 112 50 34 255 48 491 60 27 9 16 60 27 16 62 427 41 64 27	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 3.3% 0.2% 1.4% 1.1% 3.3% 0.3% 7.3% 1.1% 3.7% 2.0% 3.7% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.21, 0.010] -0.13 [-0.20, 0.06] -0.08 [-0.12, 0.00] -0.04 [-0.08, -0.01] -0.04 [-0.08, -0.01] Not estimable Not	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2022 Choi 2012 BJR Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martincich 2012 Molinari 2015 Mori 2015 Mori 2015 Orgue 2022 Qin 2023 Front C Qin 2023 JIMP	2018 [13] [14] [15] [20] [21] [24] [26] [27] [31] [32] [33] [34] [35] [37] [38] [39] [40] [42] [42]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.311 0.87 0.9993 0.9993 0.9993 1.05 0.911 0.971 0.971 0.971 0.971 0.975 0.928 1.12 0.935 0.971 1.17 0.865 0.937 1.17 0.865 0.937 1.12 0.935 0.942 0.939 0.999 0.999 0.999 0.991 0.955 0.921 1.15 0.925 0.935 0.921 1.15 0.925 0.935 0.921 1.15 0.925 0.935 0.921 1.15 0.925 0.935 0.921 1.15 0.925 0.935 0.921 1.15 0.925 0.939 1.15 0.925 0.939 1.15 0.939 0.939 0.955 0.937 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.929 1.17 0.955 0.939 1.17 0.955 0.939 1.17 0.955 0.939 1.17 0.855 0.939 1.17 0.899 0.939 1.17 1.17 1.17 1.165 1.08 1.08 1.08 1.08 1.08 1.08 1.065 1.08 1.08 1.07 1.08 1.065 1.08 1.08 1.08 1.065 1.08 1.06 1.08 1.06 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.065 1.08 1.065 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065 1.08 1.065	SD SD 0.27 0.16 0 0.277 0.17 0.277 0.177 0.33 0 0.227 0.164 0 0.227 0.164 0 0.227 0.33 0 0.227 0.177 0.202 0.24 0.24 0.24 0.24 0.260 0.2123 0.218 0.174 0.174 0.174 0.174	Total 38 49 99 97 98 97 178 67 68 67 68 65 53 70 55 59 121 156 64 43 44 41 92 99 92 90 93 93 95 95 95 95 95 95 95 95 95 95	Mean 1.2 0.45 1.045 0.904 1.008 0.939 1.14 0.982 0.955 0.922 0.972 1.011 1.12 1.17 1.12 0.963 0.955 0.923 0.955 0.912 0.957 1.011 1.12 1.12 0.939 0.965 0.939 0.955 0.952 0.955 0.952 0.955 0.952 0.955 0.952 0.9550 0.955 0.9	Sb 0.3 0.3 0.24 0.205 0.21 0.204 0.21 0.204 0.21 0.204 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.151 0.151 0.151 0.145 0.145 0.214	Total 44 26 12 24 117 50 34 25 16 27 16 27 19 21 64 27 41 64 27 64 27 64 26	Weight 0.8% 2.4% 0.3% 0.3% 0.3% 0.3% 0.3% 0.2% 1.3% 0.2% 1.3% 0.3% 0.3% 0.2% 1.1% 3.3% 1.1% 3.3% 1.1% 3.7% 2.0% 1.1%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.03 [-0.10, 0.04] Not estimable 0.31 [0.10, 0.05] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.10, 0.07] 0.24 [0.00, 0.48] Not estimable Not estimable Not estimable 0.03 [-0.18, 0.02] 0.03 [-0.08, 0.14] Not estimable Not estimable Not estimable 0.04 [-0.27, -0.01] 0.05 [-0.27, -0.01] 0.05 [-0.17, -0.01] -0.06 [-0.17, -0.01] -0.06 [-0.17, -0.01] -0.06 [-0.17, -0.01] -0.06 [-0.17, -0.01] -0.05 [-0.17, -0.01] -0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.03, 0.08] 0.02 [-0.06, 0.14] Not estimable	Mean Difference IV, Fixed, 95% C1
Study or Subgro Amornsirjenitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chol 2012 BJR Chol 2012 BJR Chol 2012 BJR Chol 2012 BJR Chol 2012 BJR Chol 2012 BJR Horvat 2018 Jima 2018 Jima 2018 Jima 2018 Kitajima 2018 Kitajima 2018 Kitajima 2018 Kitajima 2018 Kitajima 2018 Martincich 2015 Mori 2015 Mori 2015 Okuma 2020 Orgue 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI	2018 [13] [14] [15] [21] [21] [21] [22] [23] [32] [33] [34] [35] [35] [36] [37] [38] [39] [40] [42] [43] Dncol	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.87 0.92 0.9693 0.923 1.38 1.05 0.931 0.951 0.971 1.17 0.865 0.928 1.16 1.33 1.05 0.928 1.36 1.37 0.923 0.923 1.38 1.05 0.921 0.971 0.971 0.975 0.928 0.933 1.15 1.08 1.033 0.928 0.928 0.933 1.15 1.08 1.03 0.928 0.928 0.951 0.971 1.17 0.955 0.971 1.17 0.955 0.971 1.17 0.928 0.951 0.971 1.17 0.928 0.928 0.933 1.15 1.08 1.08 0.928 0.928 0.933 1.15 1.08 1.08 0.928 0.933 1.15 1.08 1.08 0.938 1.16 1.08 1.08 0.928 0.928 0.971 1.17 0.928 0.928 0.928 0.928 0.933 1.168 1.08 1.08 1.08 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.928 0.938 1.168 1.08 1.08 0.929 0.938 1.08 1.08 0.929 0.938 1.08 0.51 0.897 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.51 0.997 0.997 0.51 0.997 0.51 0.997	Solution SD 0.27 0.16 0 0.23 0.277 0.77 0.77 0.227 0.164 0.227 0.162 0.227 0.164 0.201 0.177 0.277 0.30 0.227 0.30 0.227 0.30 0.227 0.23 0.04 0.202 0.41 0.224 0.204 0.204 0.204 0.204 0.204 0.204 0.205 0.213 0.225 0.174 0.179	Total 38 49 39 9 30 98 87 178 86 67 70 178 86 55 85 59 124 214 46 46 46 46 46 45 33 34 49 9 22 9 92 29 92 92 92 930 930 930 948 930 930 948 930 930 930 948 930 930 930 930 930 930 930 930	Mean 1.2 0.45 1.045 1.045 1.045 1.045 1.045 1.098 0.993 1.14 1.08 0.955 1.2 0.972 1.2 1.011 1.12 1.031 1.12 1.031 1.12 1.031 1.12 1.031 1.12 1.035 1.12 1.045 1.14 1.055 1.14 1.055 1.14 1.055 1.14 1.055 1.14 1.055 1.14 1.12 1.055 1.14 1.12 1.076 1.14 1.12 1.076 1.14 1.12 1.076 1.14 1.12 1.12 1.12 1.045 1.14 1.12 1.12 1.147 1.12 1.045 1.147 1	Vegative SD 0.3 0.5 0 0.21 0.224 0.21 0.224 0.23 0.24 0.27 0.204 0.21 0.234 0.24 0.23 0.24 0.34 0.21 0.214 0.31 0.215 0 0.151 0 0.155 0 0.155 0.11 0.235 0.111 0.235 0.111	Total 44 26 22 12 24 117 50 34 25 16 25 48 49 60 27 61 62 42 42 41 60 27 61 62 42 42 41 62 42 47 41 64 27 65 103	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.3% 1.3% 0.3% 7.3% 1.1% 3.3% 4.6% 2.0% 1.17% 4.6% 2.0%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.31 [0.20, 0.06] -0.31 [0.20, 0.06] -0.31 [-0.20, 0.06] -0.31 [-0.20, 0.06] -0.04 [-0.38, 0.01] Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable 0.01 [-0.17, -0.05] -0.08 [-0.18, 0.02] Not estimable Not estimable Not estimable Not estimable 0.01 [-0.17, -0.05] -0.08 [-0.18, 0.02] Not estimable Not estimab	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martinich 2012 Molirani 2015 Okuma 2020 Orguc 2022 Onguc 2023 JMRI Ren 2019	2018 [13] [14] [15] [16] [21] [22] [24] [26] [27] [31] [32] [33] [33] [34] [33] [33] [33] [33] [33	P. Mean [12] 1.15 0.42 0.965 1.216 1.31 0.923 0.923 0.923 1.05 0.911 0.971 0.771 1.17 0.865 0.971 0.771 1.17 0.865 0.938 1.05 0.933 1.15 1.08 1.03 0.938 1.05 0.938 1.05 0.928 1.05 0.928 1.15 1.08 1.03 0.929 0.928 1.15 0.928 1.05 0.928 1.05 0.928 1.15 0.928 1.05 0.928 1.15 0.928 1.15 1.087 0.928 1.15 1.087 0.928 1.15 1.088 1.03 0.999 0.959 0.928 1.15 1.087 0.928 1.05 0.928 1.15 1.08 1.09 0.928 1.15 1.08 1.09 0.928 1.15 1.08 1.09 0.928 1.05 0.928 1.15 1.08 1.09 0.929 0.928 1.15 1.08 1.09 0.928 1.05 0.928 1.15 1.08 1.09 0.928 1.05 1.087 0.928 1.05 1.087 0.928 1.05 1.087 0.928 1.05 1.087 0.928 1.05 1.087 0.928 1.05 1.08 0.939 1.09 0.929 0.929 0.928 1.05 1.08 0.939 0.939 1.05 1.089 0.949 0.951 0.939 1.06 1.089 0.949 0.951 0.992 0.993 1.08 0.993 1.09 0.993 1.08 0.993 0.993 1.08 0.993 0.993 1.08 0.993 0.992 0.992 0.993 0.993 0.993 0.994 0.992 0.992 0.994 1.06 0.992 0.992 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 1.06 0.922 0	Solutive SD 0.27 0.16 0 0.27 0.17 0.27 0.17 0.22 0.14 0 0.227 0.30 0.277 0.30 0.177 0.277 0.30 0.174 0 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.2103 0.174 0.19 0.15 0.15	Total 38 49 39 9 9 7178 67 53 70 53 70 53 70 7178 855 855 857 124 214 214 46 73 340 171 33 40 171 92 92 204 44	Mean 1.2 0.45 1.045 0.904 1.008 1.095 0.933 0.9627 0.939 0.933 0.9627 0.939 0.933 0.9627 1.24 0.933 0.9627 1.24 1.14 1.04 0.955 1.24 0.955 1.24 0.972 1.011 1.17 1.12 0.972 0.972 1.011 1.12 0.972 1.01 1.12 0.972 1.12 0.972 1.12 1.12 0.972 1.12 0.972 1.12 0.975 0.975 1.12 0.975 0.975 1.12 0.975 0.975 1.12 0.975 0.975 1.12 0.975 0.975 1.12 0.975 0.975 1.12 0.13 0.963 0.975 0.975 1.12 0.13 0.963 0.955 0.975 1.12 0.13 0.955 0.975 1.12 0.13 0.955 0.975 1.12 0.13 0.955 0.975 1.12 0.13 0.915 0.91	Negative SD 0.3 0.16 0.21 0.24 0.257 0 0.204 0.57 0 0.204 0.57 0 0.204 0.57 0 0.21 0.31 0.31 0.33 0.31 0.151 0.152 0.151 0.151 0.152 0.151 0.255 0.151 0.255 0.151 0.255 0.151 0.235 0.151 0.235 0.1	Total 44 26 22 12 24 117 112 50 25 55 48 49 61 027 9 61 62 42 47 64 27 9 61 62 47 64 27 9 61 62 42 47 64 27 9 61 62 63 64 65 103 27	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.8% 0.2% 1.4% 1.1% 3.3% 7.3% 7.3% 1.1% 3.7% 4.8% 1.9% 2.0% 3.7%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.11, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, 0.06] -0.04 [-0.18, -0.01] Not estimable -0.02 [-0.10, 0.07] Not estimable Not estimab	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Aryonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Iima 2018 Iima 2018 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Mori ang 2015 Mori 2019 Shan 2018	2018 [13] [14] [15] [16] [21] [21] [23] [24] [24] [27] [3] [32] [33] [32] [33] [32] [33] [34] [35] [39] [40] [42] [43] [52] [52]	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.87 0.92 0.9693 0.923 1.38 1.05 0.931 0.95 0.95 0.95 0.971 1.17 0.865 0.928 1.12 0.93 1.15 1.08 1.03 1.12 0.939 0.94 1.12 0.939 0.94 1.12 0.93 1.15 1.08 1.08 0.939 0.94 0.95 0.921 0.95 0	bositive SD 0.27 0.16 0 0.23 0.277 0.22 0.164 0 0.23 0.277 0.22 0.164 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.23 0.277 0.22 0.16 0 0.227 0.22 0.16 0 0.227 0.22 0.16 0 0.227 0.22 0.16 0 0.227 0.22 0.16 0 0.227 0.22 0.027 0.22 0.027 0.22 0.027 0.22 0.027 0.22 0.02 0.027 0.22 0.02 0.02 0.02 0.027 0.22 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.02 0.00 0.02 0.00 0.02 0.	Total 38 49 39 9 30 98 87 9 30 98 87 178 87 85 85 85 9 124 214 214 214 214 415 466 73 33 40 9 20 9 20 9 20 9 20 9 20 9 20 20 20 20 20 20 20 20 20 20	Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.903 0.933 0.939 1.14 0.08 0.955 0.922 1.011 1.12 1.03 0.863 0.91 0.864 1.041 1.12 1.03 0.861 1.17 1.02 0.91 0.81 0.92 0.91 0.92 0.92 0.931 0.941 0.941 0.941 0.942 0.943 0.943 0.944 0.945	Negative SD 0.3 0.4 0.205 0.205 0.205 0.205 0.206 0.21 0.31 0.214 0.515 0 0.214 0.31 0.214 0.31 0.214 0.155 0 0.214 0.155 0.155 0.145 0.145 0.145 0.145 0.11 0.214	Total 44 426 222 40 24 40 24 40 25 55 55 55 55 55 55 55 55 55 55 55 55	Weight_ 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 1.3% 0.2% 1.4% 1.3% 0.3% 7.3% 1.3% 0.3% 7.3% 1.1% 1.3% 0.3% 7.3% 1.1%	Mean Difference IV, Fixed, 55% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] -0.13 [-0.20, -0.06] -0.13 [-0.20, -0.06] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.13, 0.05] -0.02 [-0.10, 0.07] 0.24 [0.00, 0.46] Not estimable Not estimable Not estimable -0.11 [-0.17, -0.05] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.09 [-0.17, -0.01] Not estimable Not estimable Not estimable Not estimable 0.02 [-0.03, [-0.06, 0.14] Not estimable 0.02 [-0.03, [-0.03, [-0.06, 0.14] Not estimable 0.02 [-0.06, 0.17, -0.01] -0.02 [-0.03, [-0	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitof Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Fang 2018 Horvat 2019 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Kiima 2016 Kiitajima 2016 Kiitajima 2017 Linh 2021 (Tuan L Linh 2021 (Tuan L) Shinh 2018 Shinh 2018 Shinh 2018	2018 [13] [14] [15] [21] [21] [23] [23] [23] [23] [31] [32] [33] [33] [34] [35] [37] [37] [39] [40] [42] [42] [40] [42] [54]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.216 1.216 1.216 1.38 0.923 0.923 0.923 1.38 1.05 0.971 0.771 1.07 0.955 0.971 0.771 1.07 0.928 1.12 1.08 1.03 0.923 1.15 1.08 1.03 0.928 1.12 0.93 1.16 0.928 1.12 0.93 1.16 0.928 1.216 0.971 0.971 0.928 1.216 0.931 1.17 0.928 1.216 0.931 1.17 0.928 1.216 0.931 1.17 0.928 1.127 0.928 1.128 1.09 0.928 1.128 1.09 0.928 1.09 0.928 1.09 0.931 1.08 1.09 0.932 1.08 1.09 0.932 1.08 1.03 0.992 1.08 1.08 1.03 0.992 1.08 1.08 1.03 0.992 1.08 1.08 1.08 1.09 0.932 1.08 1.08 1.09 0.932 1.08 1.08 1.09 0.932 1.08 1.08 1.08 1.08 1.08 1.08 1.09 0.992 1.08 1.09 1.08 1.08 1.09 1.08 1.08 1.09 1.08 1.08 1.09 1.08 1.09 1.08 1.	Solution SD 0.27 0.16 0 0.27 0.16 0 0.27 0.17 0.22 0.14 0 0.227 0.30 0 0.277 0.30 0 0.27 0.30 0 0.27 0.30 0 0.202 0.24 0.40 0 0.225 0.114 0.125 0.114 0.125 0.114 0.125 0.141 0.15 0.142 0.143	Total 38 49 39 9 30 9 9 7 7 8 8 5 5 5 9 9 178 8 8 5 5 5 9 9 178 8 8 5 5 5 9 9 178 8 8 5 5 5 9 9 178 8 8 5 5 5 9 9 178 8 8 5 5 5 9 9 171 8 8 5 5 5 9 9 171 8 8 5 5 5 9 9 171 8 8 5 5 5 9 9 171 155 5 5 9 9 171 155 5 5 9 9 171 155 5 9 9 171 155 5 9 9 171 155 5 5 9 9 171 155 5 5 9 9 171 155 5 5 9 9 171 155 5 5 9 9 9 171 155 5 5 9 9 9 171 155 5 5 9 9 9 171 155 5 5 9 9 9 9 9 9 9 9 9 9 2 2 2 0 4 4 4 8 6 6 6 6 6 7 7 9 9 9 2 2 144 8 8 7 7 9 9 9 2 2 2 144 8 8 7 7 9 9 9 2 2 1 144 8 8 7 9 9 9 2 2 1 144 8 144 8 144 14 14 14 14 14 14 14 14 1	Mean 1.2 0.45 1.045 0.904 1.008 1 0.933 0.9627 0.933 0.9633 0.955 1.2 0.972 1.011 1.12 1.17 0.6 0.911 1.12 1.17 0.6 0.911 0.911 0.911 1.12 1.17 0.6 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.911 0.912 0.913 0.914 0.914 <t< td=""><td>Sb 0.3 0.3 0.16 0.24 0.257 0 0.204 0.57 0 0.204 0.204 0.57 0 0.21 0.31 0.24 0.204 0.21 0.31 0.213 0.213 0.213 0.213 0.214 0.31 0.08 0.151 0.255 0.11 0.235 0.11 0.235 0.11 0.18 0.19</td><td>Total 44 26 22 12 24 40 24 117 112 50 34 25 55 48 9 61 9 9 16 62 42 47 41 64 103 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 19</td><td>Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 3.3% 1.1% 3.3% 7.3% 7.3% 1.1% 3.7% 2.0% 2.1% 3.7% 3.7%</td><td>Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] -0.13 [-0.20, 0.06] -0.08 [-0.13, 0.02] -0.08 [-0.18, -0.01] -0.02 [-0.13, 0.05] -0.04 [-0.13, 0.05] -0.05 [-0.13, 0.05] -0.05 [-0.13, 0.05] -0.05 [-0.13, 0.11] -0.05 [-0.03, 0.12] -0.05 [-0.15, 0.03] -0.11 [-0.17, -0.05] -0.05 [-0.15, 0.03] -0.01 [-0.08, 0.11]</td><td>Mean Difference IV, Fixed, 95% Cl</td></t<>	Sb 0.3 0.3 0.16 0.24 0.257 0 0.204 0.57 0 0.204 0.204 0.57 0 0.21 0.31 0.24 0.204 0.21 0.31 0.213 0.213 0.213 0.213 0.214 0.31 0.08 0.151 0.255 0.11 0.235 0.11 0.235 0.11 0.18 0.19	Total 44 26 22 12 24 40 24 117 112 50 34 25 55 48 9 61 9 9 16 62 42 47 41 64 103 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 27 60 19	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 3.3% 1.1% 3.3% 7.3% 7.3% 1.1% 3.7% 2.0% 2.1% 3.7% 3.7%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] -0.13 [-0.20, 0.06] -0.08 [-0.13, 0.02] -0.08 [-0.18, -0.01] -0.02 [-0.13, 0.05] -0.04 [-0.13, 0.05] -0.05 [-0.13, 0.05] -0.05 [-0.13, 0.05] -0.05 [-0.13, 0.11] -0.05 [-0.03, 0.12] -0.05 [-0.15, 0.03] -0.11 [-0.17, -0.05] -0.05 [-0.15, 0.03] -0.01 [-0.08, 0.11]	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2021 Choi 2012 BJR Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2018 Martincich 2012 Molinari 2015 Mori 2015 Shori 2015 Shari 2019 Shen 2019 Shen 2019	2018 [13] [14] [15] [20] [21] [23] [24] [26] [27] [3] [32] [33] [32] [33] [32] [33] [33] [35] [30] [40] [42] [43] [53] [53]	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.87 0.929 0.9693 0.923 1.38 1.05 0.931 0.955 0.971 0.771 1.17 0.865 0.929 0.963 1.133 1.15 1.08 1.03 1.15 1.08 1.03 0.999 0.51 0.999 0.51 0.992 1.15 1.08 1.09 0.999 0.51 0.992 1.15 1.08 1.09 0.999 0.51 0.992 1.15 1.08 1.08 1.08 1.15 1.08 1.08 1.08 1.08 1.08 1.15 1.08 1.08 1.08 1.08 1.08 1.15 1.08 0.999 0.52 0.999 0.55 0.991 1.15 1.15 1.08 1.06 1.08 1.06 1.08 1.06 1.08 1.06	SD SD 0.27 0.16 0.27 0.17 0.22 0.17 0.22 0.17 0.27 0.17 0.27 0.17 0.22 0.24 0.20 0.24 0.20 0.24 0.220 0.24 0.20 0.24 0.22 0.24 0.20 0.24 0.22 0.24 0.22 0.24 0.22 0.24 0.25 0.174 0.174 0.174 0.146 0.146 0.146	Total 38 49 39 9 30 9 8 97 178 88 53 77 78 88 53 77 85 55 59 124 4555 85 59 124 41 156 46 79 29 2 204 44 41 80 30 9 55 52 53 54 54 9 55 55 55 55 55 55 55 55 55 55 55 55 5	Mean 1.2 0.45 0.901 1.045 0.902 1.045 0.903 0.933 0.933 0.942 0.933 0.942 0.953 0.953 0.953 0.953 0.953 0.953 1.24 1.07 0.681 1.24 1.24 1.24 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.983 0.881 1.24 0.983 0.881 0.881 0.881 0.893 0.893 0.893 0.893 0.893 </td <td>Negative SD 0.3 0.3 0.152 0 0.205 0.205 0.206 0.211 0.3204 0.213 0.204 0.21 0.324 0.204 0.21 0.324 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.23 0.145 0.145 0.11 0.12 0.135 0.145 0.15 0.16 0.17 0.185 0.15 0.15</td> <td>Total 44 26 22 40 24 117 112 55 55 55 55 55 55 55 55 55 55 55 55 55</td> <td>Weight 0.8% 2.4% 0.9% 0.9% 0.9% 0.9% 1.4% 1.1% 1.8% 0.2% 1.4% 1.1% 3.3% 0.4% 0.3% 0.4%</td> <td>Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.12 [0.01, 0.24] -0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.04 [-0.18, -0.07] Not estimable -0.04 [-0.18, 0.05] Not estimable Not estimable Not estimable -0.04 [-0.13, 0.05] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.17, -0.05] -0.08 [-0.17, -0.01] Not estimable Not estimable -0.08 [-0.17, -0.01] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.08] -0.02 [-0.03, 0.08] -0.22 [-0.03, 0.08] -0.23 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.31 [-0.17, -0.06] -0.11 [-0.17, -0.06] -0.05 [-0.04, 10.11] -0.15, -0.03 -0.05 [-0.04, 10.11] -0.05 [-0.</td> <td>Mean Difference IV, Fixed, 95% Cl</td>	Negative SD 0.3 0.3 0.152 0 0.205 0.205 0.206 0.211 0.3204 0.213 0.204 0.21 0.324 0.204 0.21 0.324 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.21 0.23 0.145 0.145 0.11 0.12 0.135 0.145 0.15 0.16 0.17 0.185 0.15 0.15	Total 44 26 22 40 24 117 112 55 55 55 55 55 55 55 55 55 55 55 55 55	Weight 0.8% 2.4% 0.9% 0.9% 0.9% 0.9% 1.4% 1.1% 1.8% 0.2% 1.4% 1.1% 3.3% 0.4% 0.3% 0.4%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.12 [0.01, 0.24] -0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.04 [-0.18, -0.07] Not estimable -0.04 [-0.18, 0.05] Not estimable Not estimable Not estimable -0.04 [-0.13, 0.05] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.17, -0.05] -0.08 [-0.17, -0.01] Not estimable Not estimable -0.08 [-0.17, -0.01] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.08] -0.02 [-0.03, 0.08] -0.22 [-0.03, 0.08] -0.23 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.32 [-0.34, -0.30] -0.31 [-0.17, -0.06] -0.11 [-0.17, -0.06] -0.05 [-0.04, 10.11] -0.15, -0.03 -0.05 [-0.04, 10.11] -0.05 [-0.	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanitch Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horval 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Iima 2018 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2017 Linh 2021 (Tuan L Liu 2018 Martincich 2012 Moiriani 2015 Okuma 2020 Orgue 2023 Jimit Qin 2023 Jimit Qin 2023 Jimit Qin 2023 Jimit Qin 2023 Jimit Shin 2018 Shin 2018	2018 [13] [14] [15] [21] [21] [23] [24] [24] [23] [31] [33] [33] [33] [33] [35] [33] [35] [35] [39] [40] [42] [42] [51] [52] [55]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.131 0.87 0.92 0.9693 0.923 1.38 1.05 0.931 1.05 0.971 1.17 0.865 0.928 1.126 0.93 1.15 0.933 1.15 0.933 1.15 0.921 0.971 0.971 0.922 0.93 1.08 0.933 0.923 0.933 0.923 0.933 0.923 0.934 1.08 0.939 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.51 0.899 0.922 1.08 0.922 1.08 0.923 0.923 0.923 0.933 0.923 0.933 0.929 0.51 0.899 0.51 0.899 0.928 0.929 0.51 0.899 0.929 0.928 0.933 0.929 0.51 0.899 0.928 0.929 0.51 0.899 0.928 0.929 0.51 0.899 0.928 0.929 0.51 0.899 0.928 0.928 0.933 0.929 0.51 0.899 0.928 0.928 0.929 0.928 0.929 0.928 0.928 0.929 0.928 0.927 0.927 0.927 0.927 0.927 0.928 0.888 0	Solution Solution 0.27 0.16 0 0.277 0.16 0 0.277 0.17 0.20 0.17 0.27 0.164 0 0.227 0.164 0.177 0.200 0.192 0.202 0.2192 0.224 0.24 0.44 0.26 0.113 0.2123 0.214 0.214 0.215 0.111 0.155 0.111 0.155 0.216 0.217 0.216	Total 38 49 39 9 30 9 7 7 88 8 7 7 7 88 8 5 5 5 9 7 7 8 8 5 5 5 9 7 2 4 4 2 14 156 6 7 3 3 40 171 8 8 5 5 5 9 9 9 9 0 0 9 9 9 30 0 9 9 7 7 7 8 8 8 5 5 5 5 9 9 7 7 7 8 8 8 5 5 5 5 9 9 7 7 7 8 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.903 0.932 0.932 1.14 1.08 0.963 0.952 0.972 1.011 1.12 1.03 0.866 0.911 1.12 1.03 0.86 0.91 1.12 1.03 0.861 0.91 0.92 0.91 0.92 0.91 0.92 0.92 0.93 0.93 0.92 0.93 0.92 0.93 0.92 0.93 0.92 0.93 0.93 0.94 0.95 0.95 0.95 0	Negative SD 0.3 0.4 0.205 0 0.21 0.257 0 0.204 0.204 0.21 0.334 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.204 0.211 0.31 0.211 0.31 0.31 0.31 0.31 0.325 0.11 0.235 0.11 0.31 0.31 0.31 0.325 0.11 0.12 0.13 0.14	Total 44 426 222 400 24 117 112 24 24 117 112 20 34 42 555 48 9 61 60 27 9 61 62 27 9 6 19 21 24 42 42 42 44 16 27 27 65 55 27 20 19 39 26 27 27 27 27 27 27 27 27 27 27 27 27 27	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 3.3% 1.1% 3.3% 1.1% 3.7% 2.0% 2.1% 3.7% 2.1% 3.7% 2.1%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] Not estimable 0.31 [0.21, 0.20, 0.06] -0.08 [-0.12, 0.00] -0.08 [-0.12, 0.00] -0.04 [-0.08, 0.01] Not estimable Not estimable Not estimable Not estimable 0.01 [-0.17, -0.05] -0.08 [-0.18, 0.02] 0.03 [-0.08, 0.14] Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable Not estimable 0.01 [-0.23, -0.11] -0.24 [-0.00, 0.14] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fang 2018 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martincich 2012 Molinari 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Shin 2016 Shin 2016 Shin 2016 Suo 2019 Shin 2016 Suo 2017 Suo 2017 Tang 2021 Tang 2021 Tang 2021	2018 [13] [14] [15] [20] [23] [24] [23] [24] [23] [24] [33] [35]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.311 0.972 0.9993 0.9993 0.9993 1.05 0.971 0.971 0.977 0.965 0.971 1.17 0.965 0.921 1.12 1.08 1.03 0.999 0.51 1.15 1.08 1.03 0.999 0.51 1.16 1.08 1.03 0.999 0.51 1.16 0.899 0.52 1.16 0.925 1.16 0.895 0.921 1.17 0.925 0.924 1.06 0.899 0.525 0.921 1.17 0.925 0.921 1.06 0.899 0.521 0.932 1.16 0.925 0.921 1.16 0.899 0.51 0.925 0.924 1.05 0.925 0.924 0.925 0.966 0.888 1.05 0.899 0.51 0.925 0.924 1.066 0.888 1.05 0.899 0.666 0.888 1.136 0.865 0.922 1.06 0.899 0.525 0.955 0.955 0	SD 0.27 0.16 0.27 0.17 0.22 0.17 0.27 0.164 0.027 0.33 0 0.174 0.277 0.174 0.277 0.172 0.276 0.192 0.244 0.264 0.123 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.24 0.25 0.173 0.215 0.146 0.17 0.176 0.216 0.217 0.176 0.216 0.216 0.217 0.176	Total 38 49 39 9 30 9 9 30 0 8 8 9 7 7 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5	h Mean 1.2 0.45 0.994 1.045 0.993 0.983 0.952 1.2 0.973 1.14 0.953 0.955 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.973 1.2 0.983 0.955 1.2 0.974 1.12 1.075 1.2 0.983 0.881 1.274 1.27 0.6881 1.24 1.24 1.24 1.25 0.983 0.881 1.24 1.24 1.24 1.25 1.24 1.25 1.24 1.25 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25	Negative SD 0.3 0.3 0.205 0.205 0.205 0.205 0.205 0.205 0.205 0.205 0.206 0.211 0.3244 0.213 0.204 0.214 0.215 0 0.214 0.315 0 0.155 0.106 0.145 0.145 0.141 0.142 0.143 0.145 0.145 0.141 0.142 0.143 0.143 0.145 0.150 0.150	Total 44 26 22 40 24 117 112 0 34 42 55 55 55 55 55 55 55 55 55 55 55 55 55	Weight_ 0.8% 2.4% 0.9% 2.4% 0.9% 1.8% 0.2% 1.4% 1.1% 3.3% 7.3% 1.3% 0.3% 7.3% 1.3% 0.3% 2.0% 1.3% 3.7% 3.7% 4.6% 1.9% 3.7% 4.6% 1.9% 2.4% 3.7% 4.6% 1.9% 1.9% 1.9% 3.7% 4.6% 1.9% 1.9% 1.9% 1.9% 1.9% 1.9% 1.9% 1.9	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] Not estimable 0.31 [0.10, 0.51] 0.12 [0.01, 0.24] 0.13 [-0.20, -0.06] -0.42 [-0.10, 0.07] 0.24 [-0.10, 0.07] 0.24 [-0.10, 0.07] 0.24 [-0.10, 0.07] 0.24 [-0.10, 0.07] 0.24 [-0.20, 0.06, 0.14] Not estimable Not estimable 0.01 [-0.17, -0.05] 0.03 [-0.28, -0.20] 0.03 [-0.28, -0.20] 0.03 [-0.28, -0.20] 0.03 [-0.28, -0.20] 0.03 [-0.23, -0.11] Not estimable Not estimable Not estimable 0.24 [-0.23, 0.01] 0.22 [-0.34, -0.20] 0.03 [-0.06, 0.14] Not estimable 1.15 [-0.17, -0.05] 0.25 [-0.17, -0.01] 0.25 [-0.03, 0.12] 0.23 [-0.34, -0.30] 0.01 [-0.17, -0.05] 0.01 [-0.18, -0.10] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitof Aydin 2018 Catalano 2017 Chang 2023 Chan 2012 Chan 2021 Chan 2022 Chai 2012 BJR Chai 2012 WJSO Fan 2018 Fang 2023 Chai 2012 WJSO Fang 2023 Horvat 2019 lima 2018 lima 2018 lima 2018 Kim 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martincich 2012 Molinari 2015 Okuma 2020 Orgue 2023 JMRI On 2023	2018 [13] [14] [15] [20] [21] [23] [24] [26] [27] [3] [28] [32] [31] [32] [33] [33] [34] [35] [35] [35] [55] [55] [55]	P. Mean [12] 1.15 0.42 0.965 1.216 1.131 0.87 0.92 0.9693 0.923 0.923 0.923 0.923 0.923 0.923 0.933 1.05 0.971 1.17 0.865 0.931 1.17 0.928 1.136 1.08 1.03 0.931 0.93 0.933 1.15 1.08 1.08 0.938 1.16 0.938 1.16 0.899 0.689 0.899 0.689 0.999 0.689 0.93 1.16 0.899 0.93 1.16 0.899 0.94 0.999 0.689 0.93 1.16 0.899 0.95 0.93 1.16 0.938 1.16 0.938 1.08 1.08 0.938 1.16 0.938 1.16 0.938 1.16 0.899 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.689 0.991 0.997 0.9	solution solution 0.27 0.16 0.277 0.16 0.277 0.26 0.277 0.26 0.277 0.26 0.277 0.27 0.27 0.27 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.214 0.202 0.202 0.202 0.202 0.216 0.216 0.11 0.15 0.11 0.15 0.216 0.216 0.17 0.18 0.11 0.15 0.216 0.216 0.217 0.216 <td>Total 38 49 39 9 30 8 9 7 7 7 8 8 6 7 8 8 6 7 8 8 8 6 7 8 8 8 5 5 9 7 7 0 5 5 5 9 7 7 8 8 8 8 5 5 5 9 9 7 7 7 8 8 8 8 5 5 5 9 9 9 9 9 9 9 9 9 9 9 9 9</td> <td>Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.903 0.933 0.962 0.932 0.933 0.955 1.2 0.972 1.011 1.12 1.03 0.963 0.972 1.011 1.12 1.03 0.861 1.17 0.681 1.24 1.12 0.981 0.91 0.881 1.24 1.12 0.983 0.81 1.24 1.12 0.833 1.24 1.12 0.83 1.24 1.12 0.83 1.12 0.83 1.12 0.83 1.12</td> <td>Negative SD 0.3 0.4 0.205 0 0.21 0.204 0.57 0 0.21 0.24 0.57 0 0.21 0.31 0.24 0.271 0.204 0.271 0.211 0.213 0.213 0.213 0.214 0.215 0.0 0.213 0.214 0.25 0.31 0.15 0.15 0.15 0.16 0.17 0.16 0.17 0.12</td> <td>Total 44 426 22 12 40 24 117 112 25 16 25 55 48 9 61 60 27 9 16 19 21 62 47 41 64 47 47 65 103 27 60 19 39 9 26 27 39 9 26 27 43</td> <td>Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.3% 0.2% 1.4% 1.3% 0.3% 7.3% 2.0% 1.1% 2.0% 1.1% 2.1% 3.3% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9</td> <td>Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.33 [0.20, -0.06] -0.13 [-0.20, -0.06] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] -0.02 [-0.10, 0.07] -0.04 [-0.38, -0.01] Not estimable Not estimable Not estimable -0.11 [-0.17, -0.05] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.04 [-0.38, -0.01] -0.04 [-0.30, 0.014] Not estimable Not estimable -0.11 [-0.17, -0.05] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.03 [-0.03, 1-0.03] -0.03 [-0.03, 1-0.03] -0.03 [-0.03, 0.14] Not estimable -0.11 [-0.17, -0.01] -0.02 [-0.10, 0.01] -0.03 [-0.03, 0.13] -0.03 [-0.03, 0.14] Not estimable -0.11 [-0.17, -0.05] -0.03 [-0.03, 0.13] -0.01 [-0.06, 0.11] -0.05 [-0.01, 0.05] Not estimable -0.05 [-0.01, 0.11] -0.05 [-0.01, 0.05] -0.05 [-0.01</td> <td>Mean Difference IV, Fixed, 95% Cl</td>	Total 38 49 39 9 30 8 9 7 7 7 8 8 6 7 8 8 6 7 8 8 8 6 7 8 8 8 5 5 9 7 7 0 5 5 5 9 7 7 8 8 8 8 5 5 5 9 9 7 7 7 8 8 8 8 5 5 5 9 9 9 9 9 9 9 9 9 9 9 9 9	Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.903 0.933 0.962 0.932 0.933 0.955 1.2 0.972 1.011 1.12 1.03 0.963 0.972 1.011 1.12 1.03 0.861 1.17 0.681 1.24 1.12 0.981 0.91 0.881 1.24 1.12 0.983 0.81 1.24 1.12 0.833 1.24 1.12 0.83 1.24 1.12 0.83 1.12 0.83 1.12 0.83 1.12	Negative SD 0.3 0.4 0.205 0 0.21 0.204 0.57 0 0.21 0.24 0.57 0 0.21 0.31 0.24 0.271 0.204 0.271 0.211 0.213 0.213 0.213 0.214 0.215 0.0 0.213 0.214 0.25 0.31 0.15 0.15 0.15 0.16 0.17 0.16 0.17 0.12	Total 44 426 22 12 40 24 117 112 25 16 25 55 48 9 61 60 27 9 16 19 21 62 47 41 64 47 47 65 103 27 60 19 39 9 26 27 39 9 26 27 43	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.3% 0.2% 1.4% 1.3% 0.3% 7.3% 2.0% 1.1% 2.0% 1.1% 2.1% 3.3% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.33 [0.20, -0.06] -0.13 [-0.20, -0.06] -0.13 [-0.20, -0.06] -0.06 [-0.12, -0.00] -0.04 [-0.08, -0.01] Not estimable -0.02 [-0.10, 0.07] -0.02 [-0.10, 0.07] -0.04 [-0.38, -0.01] Not estimable Not estimable Not estimable -0.11 [-0.17, -0.05] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.04 [-0.38, -0.01] -0.04 [-0.30, 0.014] Not estimable Not estimable -0.11 [-0.17, -0.05] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.02 [-0.10, 0.01] -0.03 [-0.03, 1-0.03] -0.03 [-0.03, 1-0.03] -0.03 [-0.03, 0.14] Not estimable -0.11 [-0.17, -0.01] -0.02 [-0.10, 0.01] -0.03 [-0.03, 0.13] -0.03 [-0.03, 0.14] Not estimable -0.11 [-0.17, -0.05] -0.03 [-0.03, 0.13] -0.01 [-0.06, 0.11] -0.05 [-0.01, 0.05] Not estimable -0.05 [-0.01, 0.11] -0.05 [-0.01, 0.05] -0.05 [-0.01	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Aydin 2018 Chalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martinich 2012 Molirani 2015 Okuma 2020 Orguc 2022 JMRI Ren 2019 Shen 2018 Shen 2018 Shen 2018 Shen 2018 Shen 2019 Shen 2019 Shen 2021 Yang 2021 Yang 2021 Yang 2021 Yang 2021	2018 [13] [14] [15] [20] [21] [23] [24] [26] [27] [31] [32] [33] [34] [33] [34] [37] [38] [40] [42] [51] [52] [55] [57] [57] [59]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.311 1.38 1.05 0.923 1.05 0.923 1.05 0.971 0.771 1.17 0.955 0.971 0.771 1.17 0.965 0.973 0.933 1.05 0.933 1.05 0.933 1.05 0.933 1.05 0.942 0.942 0.942 0.95 0.942 0.95 0.942 0.95 0.942 0.95 0.942 0.95 0.55 0.55 0.55 0.55 0.55 0.5	Solution SD 0.27 0.16 0 0.277 0.164 0 0.227 0.164 0 0.227 0.164 0.202 0.174 0.202 0.24 0.202 0.24 0.202 0.24 0.202 0.24 0.215 0.146 0.174 0.123 0.215 0.146 0.174 0.174 0.123 0.215 0.146 0.174 0.174 0.175 0.146 0.174 0.15 0.216 0.216 0.216 0.216 0.216 0.217 0.218 0.219 0.210 <	Total 38 49 39 99 300 98 97 178 67 88 97 178 53 70 53 70 53 70 53 70 124 214 214 2156 46 47 153 33 34 41 29 204 400 300 300 300 300 300 300 300 300 300 300 300 300 300 300 300 300 300 300	Mean 1.2 0.45 0.902 1.0105 0.9033 0.9333 0.9323 0.933 0.933 0.9427 1.08 0.955 1.2 0.952 1.2 0.955 1.2 0.955 1.2 0.955 1.2 0.955 1.2 0.955 0.955 1.17 1.12 0.66 0.91 1.13 0.881 1.15 0.983 0.66 0.831 1.15 0.833 1.16 0.846 0.856 0.836 0.846 0.846 0.846	Negative SD 0.3 0.13 0.0205 0.16 0.201 0.152 0.0 0.204 0.57 0.034 0.213 0.214 0.34 0.151 0.265 0.16 0.213 0.151 0.161 0.152 0.1151 0.145 0.151 0.145 0.151 0.145 0.151 0.145 0.151 0.152 0.151 0.152 0.151 0.152 0.153 0.2056 0.151 0.152 0.153 0.154 0.155 0.2066 0 0.152	Total 44 26 212 40 42 4117 115 55 55 55 55 55 55 55 55 55 55 55 55	Weight 0.8% 2.4% 0.3% 0.9% 2.4% 1.3% 0.2% 1.4% 3.3% 1.3% 0.3% 3.3% 1.1% 3.3% 1.3% 3.7% 2.0% 3.7% 3.7% 4.6% 1.9% 3.7% 3.7% 4.6% 1.5% 7.5%	Mean Difference IV, Fixed, 95% (- 0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.05 [-0.17, 0.07] -0.08 [-0.10, 0.04] Not estimable -0.02 [-0.10, 0.07] Not estimable -0.02 [-0.10, 0.07] Not estimable -0.02 [-0.10, 0.07] Not estimable Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2023 Chen 2021 Choi 2012 BJR Feng 2022 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martincich 2012 Molinari 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Subgroup 2020 Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Qin 2023 JMRI Subgroup 2019 Tang 2021 Tangiman 2023 Vang 2021 Yuang 2021 Yuan 2018	2018 2018 [13] [14] [15] [21] [21] [22] [23] [24] [24] [27] [31] [32] [31] [32] [33] [34] [35] [35] [36] [40] [42] [43] [55] [55] [55] [55] [55] [55] [55]	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.87 0.92 0.9693 0.923 1.38 1.05 0.933 1.38 1.05 0.95 0.971 1.17 0.865 0.923 1.12 1.38 1.05 0.923 1.38 1.05 0.923 1.38 1.05 0.923 1.38 1.05 0.924 0.953 0.923 1.38 1.05 0.924 0.953 0.925 0.971 1.17 0.865 0.923 1.12 1.38 1.05 0.923 1.38 1.05 0.924 0.953 0.953 0.953 0.953 0.953 0.955 0.974 1.17 0.925 0.933 1.15 1.08 1.08 1.08 1.08 1.08 1.08 0.933 1.15 1.08 1.08 1.08 1.08 1.08 1.08 1.094 0.866 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.366 0.868 1.368 1.366 0.933 0.951 0.951 0.954 0.954 0.954 0.954 0.955 0.954 0.955 0.954 0.955 0.955 0.954 0.955 0.956 0.955 0.955 0.957 0.955 0.957 0.955 0.957 0.955 0.957 0.955	Solution SD 0.27 0.16 0.277 0.17 0.227 0.164 0 0.277 0.261 0.277 0.262 0.177 0.222 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.218 0.110 0.121 0.216 0.111 0.216	Total 38 49 38 49 9 9 38 97 98 97 78 67 85 53 70 55 59 124 156 46 43 40 171 53 44 42 92 92 92 92 92 94 44 95 88 65 122 143 80	Mean 1.2 0.45 0.904 1.045 0.903 0.939 1.14 0.939 1.14 0.939 1.14 0.955 0.922 1.011 1.12 1.03 0.863 1.041 1.12 1.03 0.866 0.91 1.12 1.04 0.955 0.830 1.124 0.855 0.833 0.655 0.833 0.855 0.838 0.855 0.838 0.855 0.848 0.855 0.838 0.845 0.845 0.846 1.112	Negative SD 0.3 0.4 0.205 0.0 0.205 0.0 0.21 0.31 0.213 0.0152 0 0.213 0.31 0.04 0.155 0.152 0.10 0.11 0.255 0.145 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.15 0.16 0.17 0.185 0.16 0.120 0 0.120 0 0.12 0.48	Total 44 46 22 40 42 4117 112 25 55 16 55 55 48 49 61 25 55 48 49 61 27 9 9 16 12 27 9 16 27 9 16 27 9 16 27 27 9 16 12 27 40 44 42 43 43 45 55 55 55 48 49 49 27 27 27 27 27 27 27 27 27 27 27 27 27	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 1.3% 0.2% 1.4% 1.3% 0.3% 7.3% 1.3% 0.3% 1.3% 0.3% 1.3% 0.3% 1.3% 0.3% 1.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0.3% 0	Mean Difference IV, Fixed, 55% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.10, 0.04] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.13, 0.05] -0.02 [-0.10, 0.07] 0.24 [0.00, 0.46] Not estimable Not estimable -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.18, 0.02] -0.08 [-0.17, -0.05] -0.08 [-0.17, -0.05] -0.08 [-0.17, -0.01] -0.08 [-0.17, -0.01] -0.08 [-0.17, -0.01] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.08] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.08] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.03] -0.08 [-0.17, -0.01] -0.02 [-0.03, 0.03] -0.01 [-0.17, -0.06] -0.01 [-0.07, -0.01] -0.01 [-0.07, -0.01] -0.02 [-0.01, 0.01] -0.03 [-0.07, 0.01] Not estimable -0.03 [-0.07, 0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitof Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Chen 2022 Choi 2012 BJR Choi 2012 WJSO Fan 2018 Feng 2022 Horval 2018 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Ilima 2018 Kima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2017 Linh 2021(Tuan L Liu 2018 Martinich 2017 Martinich 2017 Okuma 2020 Orgue 2023 JMRI Ren 2019 Shin 2018 Shin 2018 Shin 2018 Shin 2019 Shin 2021 Tanişman 2023 Yang 2021 Tanişman 2023 Yang 2021 Zhao 2018	2018 [13] [14] [15] [21] [23] [24] [24] [23] [31] [32] [33] [34] [33] [33] [34] [33] [34] [35] [32] [33] [34] [35] [32] [33] [34] [35]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.216 1.131 0.87 0.92 0.9693 0.923 1.38 1.05 0.931 1.05 0.971 1.17 0.865 0.928 1.126 0.933 1.155 0.971 1.17 0.865 0.928 1.126 0.933 1.155 0.921 1.0771 0.925 0.921 1.0771 0.925 0.928 1.136 0.933 0.923 1.085 0.928 1.136 0.933 0.929 0.933 1.05 0.928 1.16 0.865 0.928 1.126 0.938 1.155 0.928 1.156 0.928 1.16 0.939 0.51 0.899 0.51 0.899 0.51 0.899 0.928 1.086 0.938 1.08 0.939 0.51 0.899 0.928 1.086 0.94 0.928 0.928 0.928 0.933 0.929 0.938 0.939 0.51 0.899 0.928 0.938 0.939 0.51 0.899 0.928 0.938 0.939 0.948 0.959 0.948 0.959 0.959 0.928 0.938 0.939 0.939 0.959 0.948 0.959 0.959 0.959 0.928 0.939 0.939 0.951 0.899 0.968 0.939 0.948 0.951 0.929 0.928 0.928 0.937 0.929 0.929 0.928 0.928 0.937 0.929 0.928 0.928 0.929 0.928 0.929 0.928 0.928 0.928 0.928 0.929 0.928 0.938 0.888 0.881 0.887 0.884 0.887 0.884 0.887 0.884 0.887 0.885 0.888 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.887 0.885 0.888 0.885 0.888 0.888 0.885 0.888 0.885 0.888 0.885 0.8	Solution Solution 0.27 0.16 0.277 0.17 0.28 0.271 0.27 0.17 0.227 0.164 0.277 0.17 0.227 0.164 0.2017 0.2017 0.2019 0.2123 0.2215 0.114 0.123 0.215 0.110 0.215 0.110 0.215 0.110 0.215 0.111 0.123 0.215 0.110 0.215 0.215 0.215 0.216 0.177 0.175 0.148 0.177 0.175 0.216 0.177	Total 38 49 39 9 30 98 97 178 67 88 59 124 214 214 214 2156 455 99 92 204 400 99 92 204 48 65 122 204 80 303 44 80 95 122 204 48 65 122 204 80 365 122 2143 866 143 865	Mean 1.2 0.45 0.904 1.045 0.904 1.045 0.933 0.932 0.937 1.14 0.963 0.953 0.952 0.972 1.011 1.12 1.03 0.866 0.911 1.12 1.03 0.866 0.911 0.811 1.04 0.953 1.12 1.03 0.81 0.91 0.92 1.17 0.65 0.833 0.826 0.826 1.17	Negative SD 0.3 0.4 0.205 0 0.21 0.257 0 0.204 0.204 0.21 0.31 0.34 0 0.211 0.34 0.204 0.21 0.31 0.21 0.31 0.21 0.34 0 0.211 0.34 0.020 0.211 0.31 0.221 0.31 0.211 0.32 0.151 0.235 0.11 0.236 0.11 0.236 0.206 0 0.206 0 0.206 0 0.208 0.209	Total 44 26 22 40 24 117 150 34 25 16 25 55 49 61 9 16 27 60 27 60 27 60 27 30 26 33 33 25	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.1% 3.3% 1.1% 3.3% 7.3% 2.0% 2.4% 1.1% 3.3% 1.1% 3.3% 1.1% 3.7% 2.0% 2.4% 2.4% 2.4% 2.4% 2.4% 2.4% 3.7% 2.5%	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.15 [-0.20, 0.06] -0.15 [-0.20, 0.06] -0.15 [-0.20, 0.06] -0.06 [-0.18, 0.01] Not estimable Not estimable 0.02 [-0.03, -0.11] -0.02 [-0.10, .00] 0.02 [-0.03, -0.11] -0.03 [-0.06, 0.110] 0.05 [-0.03, -0.12] -0.03 [-0.15, -0.03] -0.01 [-0.06, 0.110] .0.05 [-0.07, 0.01] Not estimable -0.03 [-0.07, 0.07] Not estimable -0.03 [-0.07, 0.07] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjpanitch Argonent 2015 Aydin 2018 Catalano 2017 Chang 2023 Chen 2021 Choi 2012 BJR Choi 2012 WJSO Fang 2018 Horvat 2019 Jima 2018 Jima 2018 Jima 2018 Jima 2018 Kim 2015 Kim 2015 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Mori 2015 Mori 2015 Mori 2015 Mori 2015 Orgue 2022 Qin 2023 JMRI Ren 2019 Shen 2019 Shen 2019 Shen 2019 Shen 2019 Suo 2019 Tanjsman 2023 Yang 2021 Yuan 2021 King 2014 Zhao 2018 Zhao 2018 Zhao 2018 Zhao 2018 Zhao 2018 Zhao 2018	2018 2018 [13] [14] [15] [21] [23] [24] [23] [24] [23] [23] [31] [32] [33] [34] [35] [35] [35] [40] [42] [43] Dncol [55] [55] [57]	P. Mean [12] 1.15 0.42 0.965 1.216 1.311 0.92 0.9693 0.923 1.38 1.05 0.931 0.971 0.971 0.971 0.971 1.17 0.865 0.921 0.933 1.05 0.933 1.15 1.08 1.03 0.999 0.51 0.93 1.15 1.08 1.03 0.999 0.51 0.999 0.666 0.868 1.136 0.888 1.136 0.882 0.888 1.136 0.888 0.888 1.136 0.888 1.136 0.888 1.136 0.888 1.136 0.888 0.888 1.136 0.888 0.888 1.136 0.888 0.888 1.136 0.8888 0.888 0.888 0.8888 0.888 0.888 0.888	Solution SD 0.27 0.16 0 0.277 0.16 0.277 0.16 0.277 0.17 0.227 0.164 0 0.177 0.202 0.24 0.202 0.24 0.202 0.24 0.202 0.24 0.210 0.211 0.146 0.174 0.174 0.174 0.174 0.175	Total 38 49 99 98 97 78 67 78 53 75 59 124 156 42 171 53 33 40 171 92 204 44 92 204 44 92 204 41 92 204 41 92 204 41 92 143 86 55	Mean 1.2 0.45 0.993 0.982 0.933 0.955 0.92 0.939 1.14 1.08 0.955 1.2 0.975 1.2 0.975 1.2 0.975 1.2 0.975 1.2 0.963 0.955 0.923 0.955 0.923 0.955 1.2 0.971 1.11 0.881 1.24 1.04 0.983 0.863 1.27 1.12 0.881 0.983 0.881 1.24 1.24 1.25 0.883 1.27 1.24 0.883 1.27 1.24 0.883 1.27 1.24 0.883 0.855 0.883 0.855 0.883 0.855 0.883 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.884 0.855 0.885 0	Negative SD 0.3 0.3 0.205 0.205 0.205 0.205 0.205 0.205 0.205 0.205 0.205 0.206 0.211 0.204 0.213 0.204 0.213 0.204 0.214 0.215 0 0.214 0.215 0 0.151 0.204 0.152 0.11 0.2185 0.110 0.120 0.048 0.152	Total 4 4 26 22 12 24 117 50 42 42 55 55 55 55 55 55 55 55 55 5	Weight 0.8% 2.4% 0.9% 0.9% 0.2% 1.8% 0.2% 1.1% 1.1% 3.3% 7.3% 1.1% 3.3% 1.3% 0.3% 1.3% 0.3% 1.3% 0.3% 1.5% 1.5%	Mean Difference IV, Fixed, 95% CI -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.03 [-0.17, 0.07] Not estimable 0.31 [0.10, 0.51] 0.12 [0.01, 0.24] -0.13 [-0.20, -0.06] -0.04 [-0.08, -0.01] Not estimable -0.04 [-0.10, 0.07] 0.24 [-0.08, -0.14] Not estimable Not estimable -0.08 [-0.18, 0.02] 0.03 [-0.06, 0.14] Not estimable -0.08 [-0.18, 0.02] 0.00 [-0.27, -0.01] -0.24 [-0.28, -0.20] 0.02 [-0.00, 0.14] Not estimable -0.09 [-0.17, -0.01] -0.09 [-0.17, -0.01] -0.02 [-0.03, 0.012] 0.02 [-0.03, 0.012] 0.02 [-0.03, 0.012] 0.05 [-0.01, 0.01] Not estimable -0.03 [-0.07, -0.01] Not estimable -0.03 [-0.07, 0.01] Not estimable -0.03 [-0.07, 0.01] Not estimable -0.03 [-0.07, -0.01] Not estimable	Mean Difference IV, Fixed, 95% Cl
Study or Subgro Amornsirjanito Aydin 2018 Catalano 2017 Chang 2023 Chan 2021 Chan 2021 Chan 2021 Chan 2022 Chai 2012 WJSO Fan 2018 Feng 2022 Horvat 2019 lima 2018 lima 2018 lima 2018 lima 2018 Kim 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Kitajima 2016 Martincich 2017 Molinari 2015 Okuma 2020 Orgue 2022 Qin 2023 JMRI Ongue 2022 Qin 2023 JMRI Ongue 2023 Shen 2018 Shin 2018 Shin 2016 Shin 2019 Shan 2019 Sha 2019 Zhao 2018 Zhuang 2018 Total (95% CI)	2018 2018 2018 [13] [14] [15] [21] [22] [23] [24] [23] [24] [33] [34] [33] [34] [33] [34] [33] [34] [33] [34] [33] [34] [35] [35] [39] [40] [42] [42] [51] [52] [55] [55] [55] [55] [60] [61] [62]	P. Mean [12] 1.15 0.42 0.9655 1.216 1.131 0.87 0.92 0.9693 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.923 0.933 1.05 0.931 1.17 0.865 0.933 1.15 1.08 1.08 1.03 0.999 0.51 1.10 0.899 0.51 1.12 0.933 1.15 1.08 1.08 0.929 0.951 0.971 1.17 0.928 0.951 0.971 1.17 0.928 0.951 0.951 0.933 1.15 1.08 1.08 0.939 0.51 0.933 1.15 1.08 1.08 0.939 0.51 0.939 0.51 0.939 0.51 0.939 0.51 0.939 0.51 0.939 0.51 0.939 0.55 0.931 1.12 0.939 0.55 0.934 1.108 1.08 0.889 0.680 0.889 0.886 0.884 0.884 0.877 0.944 0.865 0.933 0.955 0.944 0.857 0.955 0.954 0.955 0.955 0.955 0.955 0.957 0.955	solution solution 0.27 0.16 0 0.277 0.17 0.227 0.17 0.227 0.17 0.227 0.0 0.177 0.220 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.202 0.216 0.110 0.111 0.151 0.111 0.111 0.111 0.111 0.111 0.111 0.111	Total 38 49 38 49 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 178 67 8 55 124 144 156 46 46 41 156 9 92 94 44 80 95 92 144 150 171 18 66 122 143 86 55 3314	Mean 1.2 0.45 0.904 1.045 0.903 0.933 0.963 0.932 0.933 0.963 0.955 1.2 0.972 1.011 1.12 1.03 0.972 1.011 1.12 1.03 0.861 1.17 0.881 1.14 1.04 0.91 0.82 1.24 1.12 0.83 1.14 1.04 0.95 0.81 1.104 0.82 0.83 1.177 1.12 0.83 1.12 1.12 0.83 1.14 0.85 0.85 0.86 1.11 0.81	Negative SD 0.3 0.4 0.205 0 0.21 0.257 0 0.21 0.23 0.24 0.57 0 0.21 0.31 0.213 0.213 0.213 0.213 0.214 0.31 0.15 0 0.151 0.16 0.152 0.16 0.17 0.18 0.206 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.14 0.15	Total 44 26 22 12 40 0 24 117 15 34 49 19 21 27 65 9 9 16 19 21 27 65 103 27 60 39 26 27 60 39 27 50 30 41 27 27 50 30 42 41 27 27 27 50 48 49 10 27 27 50 30 42 41 27 27 50 30 42 41 27 27 50 30 42 41 27 27 50 30 42 41 27 55 55 55 55 55 55 55 55 55 5	Weight 0.8% 2.4% 0.3% 0.9% 3.7% 9.2% 1.4% 1.3% 0.2% 1.4% 1.3% 0.3% 7.3% 2.0% 1.1% 3.3% 2.0% 2.4% 0.3% 7.5% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9% 3.9	Mean Difference IV, Fixed, 95% Cl -0.05 [-0.17, 0.07] -0.03 [-0.17, 0.07] -0.33 [-0.20, -0.06] -0.31 [-0.20, -0.06] -0.31 [-0.20, -0.06] -0.32 [-0.20, -0.06] -0.32 [-0.10, 0.07] -0.42 [-0.10, -0.27] -0.42 [-0.10, 0.07] -0.42 [-0.10, 0.07] -0.42 [-0.10, 0.07] -0.42 [-0.10, 0.07] -0.42 [-0.10, 0.07] -0.42 [-0.10, 0.07] -0.48 [-0.11, 0.05] -0.48 [-0.11, 0.05] -0.48 [-0.11, 0.05] -0.48 [-0.11, 0.05] -0.48 [-0.12, 0.21] -0.48 [-0.12, 0.21] -0.48 [-0.12, 0.21] -0.48 [-0.12, 0.21] -0.48 [-0.13, 0.05] -0.48 [-0.14, 0.05] -0.48 [-0.17, -0.05] -0.48 [-0.17, -0.05] -0.48 [-0.17, -0.05] -0.48 [-0.17, -0.05] -0.48 [-0.13, 0.05] -0.49 [-0.17, -0.05] -0.49 [-0.17, -0.05] -0.49 [-0.17, -0.05] -0.49 [-0.15, -0.03] -0.41 [-0.15, -0.03] -0.41 [-0.13, 0.05] Not estimable -0.30 [-0.47, -0.11] -0.30 [-0.47, -0.13] -0.30 [-0.47,	Mean Difference IV, Fixed, 95% Cl

Fig. 3. ADC differences in breast tumors by HER2 status and Ki-67 status. **A:** Forest plot of mean ADC ($10^{-3} \text{ mm}^2/\text{s}$) difference reported for breast tumors with negative and positive HER2 status. Tumors exhibiting negative HER2 status show significantly lower ADCs than those with positive HER2 status. **B:** Forest plot of mean ADC ($10^{-3} \text{ mm}^2/\text{s}$) difference reported for markers of proliferation Ki-67-positive and Ki-67-negative breast tumors. Tumors positive for Ki-67 show significantly lower ADCs compared to those with negative Ki-67 status. ADC = apparent diffusion coefficient, HER2 = human epidermal growth factor 2 receptor, SD = standard deviation, IV = weighted mean difference, CI = confidence interval, Chi² = chi-squared test statistic, df = degrees of freedom, I² = heterogeneity statistic, Z = Z-test statistic





Fig. 4. Clinical examples of breast cancers (invasive ductal carcinomas). Contrast-enhanced images, diffusion-weighted images at a b value of 1000 sec/mm², and ADC maps are shown. The ADC values and each ER, PgR, HER2, and Ki-67 status of breast cancers are also demonstrated. ADC = apparent diffusion coefficient, ER = estrogen receptor, PgR = progesterone receptor, HER-2 = human epidermal growth factor receptor 2

size may be necessary to understand these relationships more accurately.

Specific ADC thresholds could help identify patients at higher risk, leading to a more personalized treatment for breast cancer. These findings pave the way for future studies to better use ADCs to determine the hormone receptor status. However, the interpretation of these results may have been influenced by the chosen diffusion time, histological threshold, and inconsistent acquisition parameters. The high inconsistency among studies, possibly exacerbated by small sample sizes, highlights the critical need for standardization in research methodologies. In addition, small mean differences in ADC values associated with hormone receptor status were observed in this study, which might have been influenced by the heterogeneity of the acquisition protocol. The standardization of ADC values, including reproducibility, is critical for verifying these changes.

Some multicenter studies have revealed that the ADC has the potential to spare patients from unnecessary biopsies for breast cancer diagnosis [9,10], thus reducing patient anxiety and healthcare costs. In addition to diagnosis, the ADC has been investigated as a potential predictor of treatment response in patients with breast cancer. The American College of Radiology Imaging Network conducted a multicenter study to assess the usefulness of ADCs in predicting the response to neoadjuvant chemotherapy in patients with breast cancer [65]. This study revealed that changes in ADCs during treatment could predict a pathological response to neoadjuvant chemotherapy and that mid-treatment changes in ADCs were predictive of hormone receptor-positive/HER2-negative cancers. Predicting treatment responses using the ADC may help guide treatment decisions and avoid ineffective therapies.

Beyond ADC: IVIM and Non-Gaussian DWI

Intravoxel incoherent motion (IVIM) and non-Gaussian DWI can provide additional information on tissue microstructure and microvasculature compared with standard ADC measurements. IVIM can be used to evaluate perfusion in capillaries, primarily at low b values (< 200 s/mm²). Large b values (> 1000 s/mm²) predominantly indicated hindered or restricted diffusion, and the non-normality of DWI could be quantified using the kurtosis model (Fig. 5). The ability to accurately characterize tissue microstructure and microvasculature can enhance the diagnostic accuracy of breast MRI, and IVIM has shown promise in differentiating between malignant and benign breast lesions [66,67].





Fig. 5. Example of a diffusion signal decay in typical breast lesions. IVIM offers insights into blood microcirculation and tissue vascularity, whereas the ADC reflects both intracellular and extracellular water diffusion, providing information about tissue cellularity. Kurtosis imaging measures the deviation from Gaussian water diffusion, offering information about hindrances caused by the tissue microstructure. IVIM = intravoxel incoherent motion, ADC = apparent diffusion coefficient

Mean kurtosis values have also been found to be useful for differentiating invasive ductal carcinoma from ductal carcinoma in situ [66]. The difference between the maximum and minimum ADCs, together with the kurtosis value calculated from a non-Gaussian diffusion model, may also help predict metastatic breast cancer [68,69]. While IVIM and non-Gaussian DWI often require the acquisition of large sets of diffusion-weighted images and dedicated data processing, recent approaches have shown that IVIM and non-Gaussian diffusion information can be collected using ad hoc parameters, such as the shifted ADC [4] and signature index [4,70]. The latter, in particular, has been shown to provide information on cancer subtypes and hormone status [71]. However, it is clear that these advanced DWI techniques require standardization in terms of both acquisition and analysis.

CONCLUSION

Breast DWI is a rapidly growing and valuable methodology for detecting and characterizing breast cancer and predicting treatment responses. It is also safe for most women. Although ADCs have been reported to significantly correlate with some molecular prognostic biomarkers and some trends might be evident, as demonstrated in the meta-analysis, there remains a lack of consensus among studies. Additionally, the accuracy of breast cancer diagnosis using DWI may be influenced by the selected diffusion times and histological thresholds, underscoring the need for standardized DWI protocols for breast cancer diagnosis. Accumulating evidence suggests that several alternative measures, including IVIM and non-Gaussian DWI, can serve as useful imaging biomarkers in clinical settings.

Conflicts of Interest

The authors have no potential conflicts of interest to disclose.

Author Contributions

Conceptualization: Mami Iima. Data curation: Mami Iima, Masako Kataoka, Maya Honda. Formal analysis: Mami Iima, Masako Kataoka. Funding acquisition: Mami Iima. Investigation: all authors. Methodology: Mami Iima, Masako Kataoka, Maya Honda. Project administration: Mami Iima, Masako Kataoka. Resources: all authors. Software: Mami Iima, Masako Kataoka, Maya Honda. Supervision: Mami

Iima et al.



Iima, Denis Le Bihan. Validation: all authors. Visualization: all authors. Writing—original draft: Mami Iima, Masako Kataoka, Maya Honda. Writing—review & editing: all authors.

ORCID IDs

Mami Iima https://orcid.org/0000-0002-1991-2494 Masako Kataoka https://orcid.org/0000-0002-6212-3351 Maya Honda https://orcid.org/0000-0002-5337-3455 Denis Le Bihan https://orcid.org/0000-0002-4454-729X

Funding Statement

This research was partially supported by AMED under grant number JP22he0422025j0001.

Acknowledgments

We thank Eric Sigmund for providing valuable advice on the manuscript. We also thank Edanz Group for editing a draft of this manuscript.

REFERENCES

- Amornsiripanitch N, Bickelhaupt S, Shin HJ, Dang M, Rahbar H, Pinker K, et al. Diffusion-weighted MRI for unenhanced breast cancer screening. *Radiology* 2019;293:504-520
- Iima M, Honda M, Sigmund EE, Ohno Kishimoto A, Kataoka M, Togashi K. Diffusion MRI of the breast: current status and future directions. *J Magn Reson Imaging* 2020;52:70-90
- 3. Iima M, Kataoka M, Honda M, Ohashi A, Ohno Kishimoto A, Ota R, et al. The rate of apparent diffusion coefficient change with diffusion time on breast diffusion-weighted imaging depends on breast tumor types and molecular prognostic biomarker expression. *Invest Radiol* 2021;56:501-508
- Iima M, Le Bihan D. Clinical intravoxel incoherent motion and diffusion MR imaging: past, present, and future. *Radiology* 2016;278:13-32
- 5. Le Bihan D. Looking into the functional architecture of the brain with diffusion MRI. *Nat Rev Neurosci* 2003;4:469-480
- Lo Gullo R, Sevilimedu V, Baltzer P, Le Bihan D, Camps-Herrero J, Clauser P, et al. A survey by the European Society of Breast Imaging on the implementation of breast diffusion-weighted imaging in clinical practice. *Eur Radiol* 2022;32:6588-6597
- 7. Baltzer P, Mann RM, Tima M, Sigmund EE, Clauser P, Gilbert FJ, et al. Diffusion-weighted imaging of the breast-a consensus and mission statement from the EUSOBI international breast diffusion-weighted imaging working group. *Eur Radiol*

2020;30:1436-1450

- 8. Lee SH, Shin HJ, Moon WK. Diffusion-weighted magnetic resonance imaging of the breast: standardization of image acquisition and interpretation. *Korean J Radiol* 2021;22:9-22
- 9. Rahbar H, Zhang Z, Chenevert TL, Romanoff J, Kitsch AE, Hanna LG, et al. Utility of diffusion-weighted imaging to decrease unnecessary biopsies prompted by breast MRI: a trial of the ECOG-ACRIN cancer research group (A6702). *Clin Cancer Res* 2019;25:1756-1765
- Clauser P, Krug B, Bickel H, Dietzel M, Pinker K, Neuhaus VF, et al. Diffusion-weighted imaging allows for downgrading MR BI-RADS 4 lesions in contrast-enhanced MRI of the breast to avoid unnecessary biopsy. *Clin Cancer Res* 2021;27:1941-1948
- 11. Surov A, Clauser P, Chang YW, Li L, Martincich L, Partridge SC, et al. Can diffusion-weighted imaging predict tumor grade and expression of Ki-67 in breast cancer? A multicenter analysis. *Breast Cancer Res* 2018;20:58
- Amornsiripanitch N, Nguyen VT, Rahbar H, Hippe DS, Gadi VK, Rendi MH, et al. Diffusion-weighted MRI characteristics associated with prognostic pathological factors and recurrence risk in invasive ER+/HER2- breast cancers. J Magn Reson Imaging 2018;48:226-236
- Arponent O, Sudah M, Masarwah A, Taina M, Rautiainen S, Könönen M, et al. Diffusion-weighted imaging in 3.0 tesla breast MRI: diagnostic performance and tumor characterization using small subregions vs. whole tumor regions of interest. *PLoS One* 2015;10:e0138702
- 14. Aydin H, Guner B, Esen Bostanci I, Bulut ZM, Aribas BK, Dogan L, et al. Is there any relationship between adc values of diffusion-weighted imaging and the histopathological prognostic factors of invasive ductal carcinoma? *Br J Radiol* 2018;91:20170705
- Catalano OA, Horn GL, Signore A, Iannace C, Lepore M, Vangel M, et al. PET/MR in invasive ductal breast cancer: correlation between imaging markers and histological phenotype. *Br J Cancer* 2017;116:893-902
- 16. Chang H, Wang D, Li Y, Xiang S, Yang YX, Kong P, et al. Evaluation of breast cancer malignancy, prognostic factors and molecular subtypes using a continuous-time random-walk MR diffusion model. *Eur J Radiol* 2023;166:111003
- 17. Chen Y, Wang J, Zhang X, Yang W, Chen H, Bao B, et al. Correlation between apparent diffusion coefficient and pathological characteristics of patients with invasive breast cancer. *Ann Transl Med* 2021;9:143
- Chen X, Gao Q, Wu Z, Wang H, Wang J. Correlations between dynamic-enhanced magnetic resonance imaging quantitative parameters and postoperative recurrence or metastasis and clinicopathological features in breast cancer patients-a retrospective cohort study. *Gland Surg* 2022;11:1374-1382
- Cho GY, Moy L, Kim SG, Baete SH, Moccaldi M, Babb JS, et al. Evaluation of breast cancer using intravoxel incoherent motion (IVIM) histogram analysis: comparison with malignant status, histological subtype, and molecular prognostic factors. *Eur Radiol* 2016;26:2547-2558



- 20. Choi SY, Chang YW, Park HJ, Kim HJ, Hong SS, Seo DY. Correlation of the apparent diffusion coefficiency values on diffusion-weighted imaging with prognostic factors for breast cancer. *Br J Radiol* 2012;85:e474-e479
- 21. Choi BB, Kim SH, Kang BJ, Lee JH, Song BJ, Jeong SH, et al. Diffusion-weighted imaging and FDG PET/CT: predicting the prognoses with apparent diffusion coefficient values and maximum standardized uptake values in patients with invasive ductal carcinoma. *World J Surg Oncol* 2012;10:126
- 22. Kamitani T, Matsuo Y, Yabuuchi H, Fujita N, Nagao M, Jinnouchi M, et al. Correlations between apparent diffusion coefficient values and prognostic factors of breast cancer. *Magn Reson Med Sci* 2013;12:193-199
- 23. Fan M, He T, Zhang P, Cheng H, Zhang J, Gao X, et al. Diffusion-weighted imaging features of breast tumours and the surrounding stroma reflect intrinsic heterogeneous characteristics of molecular subtypes in breast cancer. *NMR Biomed* 2018;31:e3869
- 24. Feng W, Gao Y, Lu XR, Xu YS, Guo ZZ, Lei JQ. Correlation between molecular prognostic factors and magnetic resonance imaging intravoxel incoherent motion histogram parameters in breast cancer. *Magn Reson Imaging* 2022;85:262-270
- 25. Guo Y, Kong QC, Li LQ, Tang WJ, Zhang WL, Ning GY, et al. Whole volume apparent diffusion coefficient (ADC) histogram as a quantitative imaging biomarker to differentiate breast lesions: correlation with the Ki-67 proliferation index. *Biomed Res Int* 2021;2021:4970265
- 26. Horvat JV, Bernard-Davila B, Helbich TH, Zhang M, Morris EA, Thakur SB, et al. Diffusion-weighted imaging (DWI) with apparent diffusion coefficient (ADC) mapping as a quantitative imaging biomarker for prediction of immunohistochemical receptor status, proliferation rate, and molecular subtypes of breast cancer. J Magn Reson Imaging 2019;50:836-846
- 27. Iima M, Kataoka M, Kanao S, Onishi N, Kawai M, Ohashi A, et al. Intravoxel incoherent motion and quantitative non-Gaussian diffusion MR imaging: evaluation of the diagnostic and prognostic value of several markers of malignant and benign breast lesions. *Radiology* 2018;287:432-441
- Jeh SK, Kim SH, Kim HS, Kang BJ, Jeong SH, Yim HW, et al. Correlation of the apparent diffusion coefficient value and dynamic magnetic resonance imaging findings with prognostic factors in invasive ductal carcinoma. *J Magn Reson Imaging* 2011;33:102-109
- 29. Karan B, Pourbagher A, Torun N. Diffusion-weighted imaging and (18)F-fluorodeoxyglucose positron emission tomography/ computed tomography in breast cancer: correlation of the apparent diffusion coefficient and maximum standardized uptake values with prognostic factors. *J Magn Reson Imaging* 2016;43:1434-1444
- 30. Kim SH, Cha ES, Kim HS, Kang BJ, Choi JJ, Jung JH, et al. Diffusion-weighted imaging of breast cancer: correlation of the apparent diffusion coefficient value with prognostic factors. J Magn Reson Imaging 2009;30:615-620
- 31. Kim EJ, Kim SH, Park GE, Kang BJ, Song BJ, Kim YJ, et al.

Histogram analysis of apparent diffusion coefficient at 3.0t: correlation with prognostic factors and subtypes of invasive ductal carcinoma. *J Magn Reson Imaging* 2015;42:1666-1678

- 32. Kim Y, Ko K, Kim D, Min C, Kim SG, Joo J, et al. Intravoxel incoherent motion diffusion-weighted MR imaging of breast cancer: association with histopathological features and subtypes. *Br J Radiol* 2016;89:20160140
- 33. Kitajima K, Yamano T, Fukushima K, Miyoshi Y, Hirota S, Kawanaka Y, et al. Correlation of the SUVmax of FDG-PET and ADC values of diffusion-weighted MR imaging with pathologic prognostic factors in breast carcinoma. *Eur J Radiol* 2016;85:943-949
- 34. Kitajima K, Miyoshi Y, Yamano T, Odawara S, Higuchi T, Yamakado K. Prognostic value of FDG-PET and DWI in breast cancer. *Ann Nucl Med* 2018;32:44-53
- 35. Lee YJ, Kim SH, Kang BJ, Kang YJ, Yoo H, Yoo J, et al. Intravoxel incoherent motion (IVIM)-derived parameters in diffusion-weighted MRI: associations with prognostic factors in invasive ductal carcinoma. *J Magn Reson Imaging* 2017;45:1394-1406
- 36. Tuan Linh L, Minh Duc N, Minh Duc N, Tra My TT, Viet Bang L, Cong Tien N, et al. Correlations between apparent diffusion coefficient values and histopathologic factors in breast cancer. *Clin Ter* 2021;172:218-224
- 37. Liu F, Wang M, Li H. Role of perfusion parameters on DCE-MRI and ADC values on DWMRI for invasive ductal carcinoma at 3.0 tesla. *World J Surg Oncol* 2018;16:239
- Martincich L, Deantoni V, Bertotto I, Redana S, Kubatzki F, Sarotto I, et al. Correlations between diffusionweighted imaging and breast cancer biomarkers. *Eur Radiol* 2012;22:1519-1528
- 39. Molinari C, Clauser P, Girometti R, Linda A, Cimino E, Puglisi F, et al. MR mammography using diffusion-weighted imaging in evaluating breast cancer: a correlation with proliferation index. *Radiol Med* 2015;120:911-918
- Mori N, Ota H, Mugikura S, Takasawa C, Ishida T, Watanabe G, et al. Luminal-type breast cancer: correlation of apparent diffusion coefficients with the Ki-67 labeling index. *Radiology* 2015;274:66-73
- 41. Nakajo M, Kajiya Y, Kaneko T, Kaneko Y, Takasaki T, Tani A, et al. FDG PET/CT and diffusion-weighted imaging for breast cancer: prognostic value of maximum standardized uptake values and apparent diffusion coefficient values of the primary lesion. *Eur J Nucl Med Mol Imaging* 2010;37:2011-2020
- 42. Okuma H, Sudah M, Kettunen T, Niukkanen A, Sutela A, Masarwah A, et al. Peritumor to tumor apparent diffusion coefficient ratio is associated with biologically more aggressive breast cancer features and correlates with the prognostication tools. *PLoS One* 2020;15:e0235278
- 43. Orguc S, Açar ÇR. Correlation of shear-wave elastography and apparent diffusion coefficient values in breast cancer and their relationship with the prognostic factors. *Diagnostics (Basel)* 2022;12:3021
- 44. Park SH, Choi HY, Hahn SY. Correlations between apparent



diffusion coefficient values of invasive ductal carcinoma and pathologic factors on diffusion-weighted MRI at 3.0 tesla. *J Magn Reson Imaging* 2015;41:175-182

- 45. Qin Y, Wu F, Hu Q, He L, Huo M, Tang C, et al. Histogram analysis of multi-model high-resolution diffusion-weighted MRI in breast cancer: correlations with molecular prognostic factors and subtypes. *Front Oncol* 2023;13:1139189
- 46. Qin Y, Tang C, Hu Q, Zhang Y, Yi J, Dai Y, et al. Quantitative assessment of restriction spectrum MR imaging for the diagnosis of breast cancer and association with prognostic factors. *J Magn Reson Imaging* 2023;57:1832-1841
- 47. Qin Y, Tang C, Hu Q, Yi J, Yin T, Ai T. Assessment of prognostic factors and molecular subtypes of breast cancer with a continuous-time random-walk MR diffusion model: using whole tumor histogram analysis. J Magn Reson Imaging 2023;58:93-105
- Ren C, Zou Y, Zhang X, Li K. Diagnostic value of diffusionweighted imaging-derived apparent diffusion coefficient and its association with histological prognostic factors in breast cancer. *Oncol Lett* 2019;18:3295-3303
- 49. Roknsharifi S, Fishman MDC, Agarwal MD, Brook A, Kharbanda V, Dialani V. The role of diffusion weighted imaging as supplement to dynamic contrast enhanced breast MRI: can it help predict malignancy, histologic grade and recurrence? *Acad Radiol* 2019;26:923-929
- 50. Sharma U, Sah RG, Agarwal K, Parshad R, Seenu V, Mathur SR, et al. Potential of diffusion-weighted imaging in the characterization of malignant, benign, and healthy breast tissues and molecular subtypes of breast cancer. *Front Oncol* 2016;6:126
- 51. Shen L, Zhou G, Tong T, Tang F, Lin Y, Zhou J, et al. ADC at 3.0 T as a noninvasive biomarker for preoperative prediction of Ki67 expression in invasive ductal carcinoma of breast. *Clin Imaging* 2018;52:16-22
- 52. Shin HJ, Kim SH, Lee HJ, Gong G, Baek S, Chae EY, et al. Tumor apparent diffusion coefficient as an imaging biomarker to predict tumor aggressiveness in patients with estrogenreceptor-positive breast cancer. NMR Biomed 2016;29:1070-1078
- 53. Suo S, Zhang D, Cheng F, Cao M, Hua J, Lu J, et al. Added value of mean and entropy of apparent diffusion coefficient values for evaluating histologic phenotypes of invasive ductal breast cancer with MR imaging. *Eur Radiol* 2019;29:1425-1434
- 54. Suo S, Cheng F, Cao M, Kang J, Wang M, Hua J, et al. Multiparametric diffusion-weighted imaging in breast lesions: association with pathologic diagnosis and prognostic factors. J Magn Reson Imaging 2017;46:740-750
- 55. Tang WJ, Jin Z, Zhang YL, Liang YS, Cheng ZX, Chen LX, et al. Whole-lesion histogram analysis of the apparent diffusion coefficient as a quantitative imaging biomarker for assessing the level of tumor-infiltrating lymphocytes: value in molecular subtypes of breast cancer. *Front Oncol* 2021;10:611571
- 56. Tezcan Ş, Uslu N, Öztürk FU, Akçay EY, Tezcaner T. Diffusionweighted imaging of breast cancer: correlation of the apparent diffusion coefficient value with pathologic prognostic factors.

Eur J Breast Health 2019;15:262-267

- 57. Tanişman Ö, Kiziltepe FT, Yildirim Ç, Coşar ZS. Prediction of prognostic factors in breast cancer: a noninvasive method utilizing histogram parameters derived from ADC maps. *Heliyon* 2023;9:e16282
- 58. Wang Z, Ren GY, Yin Q, Wang Q. Correlation of magnetic resonance imaging quantitative parameters and apparent diffusion coefficient value with pathological breast cancer. *World J Clin Cases* 2022;10:7333-7340
- 59. Yang Z, Chen X, Zhang T, Cheng F, Liao Y, Chen X, et al. Quantitative multiparametric MRI as an imaging biomarker for the prediction of breast cancer receptor status and molecular subtypes. *Front Oncol* 2021;11:628824
- 60. Yuan C, Jin F, Guo X, Zhao S, Li W, Guo H. Correlation analysis of breast cancer DWI combined with DCE-MRI imaging features with molecular subtypes and prognostic factors. *J Med Syst* 2019;43:83
- 61. Zhao M, Fu K, Zhang L, Guo W, Wu Q, Bai X, et al. Intravoxel incoherent motion magnetic resonance imaging for breast cancer: a comparison with benign lesions and evaluation of heterogeneity in different tumor regions with prognostic factors and molecular classification. *Oncol Lett* 2018;16:5100-5112
- 62. Zhuang Z, Zhang Q, Zhang D, Cheng F, Suo S, Geng X, et al. Utility of apparent diffusion coefficient as an imaging biomarker for assessing the proliferative potential of invasive ductal breast cancer. *Clin Radiol* 2018;73:473-478
- 63. Meyer HJ, Wienke A, Surov A. Diffusion-weighted imaging of different breast cancer molecular subtypes: a systematic review and meta-analysis. *Breast Care (Basel)* 2022;17:47-54
- 64. Someya Y, Iima M, Imai H, Yoshizawa A, Kataoka M, Isoda H, et al. Investigation of breast cancer microstructure and microvasculature from time-dependent DWI and CEST in correlation with histological biomarkers. *Sci Rep* 2022;12:6523
- 65. Partridge SC, Zhang Z, Newitt DC, Gibbs JE, Chenevert TL, Rosen MA, et al. Diffusion-weighted MRI findings predict pathologic response in neoadjuvant treatment of breast cancer: the ACRIN 6698 multicenter trial. *Radiology* 2018;289:618-627
- 66. Li Z, Li X, Peng C, Dai W, Huang H, Li X, et al. The diagnostic performance of diffusion kurtosis imaging in the characterization of breast tumors: a meta-analysis. *Front Oncol* 2020;10:575272
- Iima M. Perfusion-driven intravoxel incoherent motion (IVIM) MRI in oncology: applications, challenges, and future trends. Magn Reson Med Sci 2021;20:125-138
- Kim JY, Kim JJ, Hwangbo L, Kang T, Park H. Diffusion-weighted imaging of invasive breast cancer: relationship to distant metastasis-free survival. *Radiology* 2019;291:300-307
- 69. Honda M, Iima M, Kataoka M, Fukushima Y, Ota R, Ohashi A, et al. Biomarkers predictive of distant disease-free survival derived from diffusion-weighted imaging of breast cancer. *Magn Reson Med Sci* 2023;22:469-476
- 70. Goto M, Le Bihan D, Yoshida M, Sakai K, Yamada K. Adding a model-free diffusion MRI marker to BI-RADS assessment



improves specificity for diagnosing breast lesions. *Radiology* 2019;292:84-93

71. Goto M, Le Bihan D, Sakai K, Yamada K. The diffusion MRI

signature index is highly correlated with immunohistochemical status and molecular subtype of invasive breast carcinoma. *Eur Radiol* 2022;32:4879-4888