Helicobacter pylori Eradication Following Endoscopic Resection Might Prevent Metachronous Gastric Cancer: A Systematic Review and Meta-analysis of Studies From Japan and Korea

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Study	Veen	Country	Docion	Follow-up period (range)	Drimory diagona	MCL outcome	E	Event/total nu	mber
Study	rear	Country	Design	(Negative)/Eradicated/Persistent	Primary disease	MGL outcome	Negative	Eradicated	Persistent
						MGC	/	747/34,209	1,659/35,513
Yoo, H. W.	2023	Korea	Cohort	5.9 years (range 3.9-7.8)/5.3 years (range 3.4-7.4)	Dysplasia	Dysplasia,	/	154/34,209	782/35,513
						MGC and dysplasia	/	901/34,209	2,441/35,513
						MGC,	/	3/163	9/510
Noh, C. K.	2023	Korea	Cohort	25 months (IQR: 18-35) / 39 months (IQR: 27-57)	Dysplasia	Dysplasia,	/	3/163	13/510
						MGC and dysplasia	/	6/163	22/510
Nakata, R.	2021	Japan	Cohort	40.0 months (IQR 26.0-59.8) /38.5 months (IQR 25.0-66.5)	EGC	MGC	/	5/126	17/126
Kato, M.	2021	Japan	Cohort	3.5 years (range 1.1–14.8)	EGC	MGC	/	52/294	35/189
Ikeda, R.	2021	Japan	Cohort	39.8 months (range 18–180)	EGC	MGC	19/61	34/315	100/562
Okada, K.	2019	Japan	Cohort	4.1 years (range 3.0-5.7)/ 4.1 years (range 2.9-5.6)	EGC	MGC	/	27/174	33/174
Han, S. J.	2018	Korea	Cohort	60, 61, and 60 months (range 12-122)	EGC	MGC	20/157	12/212	18/196
Choi, J. M.	2018	Korea	RCT	71.7 months(range 44.2-91.7)/70.6 months (range 39.3-87.4)	EGC and dysplasia	MGC	/	18/437	36/440
Kwon, Y.	2017	Korea	Cohort	47.7 months (range18.4–125)	EGC	MGC and dysplasia	11/56	33/368	8/27
Chung, C. S.	2017	Korea	Cohort	24 months (range:6 to 75)	EGC	MGC and dysplasia	/	17/167	7/18
Kim, S. B.	2016	Korea	Cohort	36.18 months (±26.74)/32.78 months (±23.72)/33.29 months (±25.93)	EGC	MGC	7/95	3/120	1/42
Chin C II	2015	Varia	Cabart	53.0 months (range 26.3-85.7) /58.3 months (range 24.3-	Deventaria	MGC,	4/124	4/122	3/36
Shin, S. H.	2015	Korea	Conort	85.9) /57.2 months (range 28.1-85.2)	Dyspiasia	Dysplasia	15/124	6/122	4/36
Jung, S.	2015	Korea	Cohort	42.6 months	EGC and dysplasia	MGC and dysplasia	4/366	10/169	21/506
Varian VII	2014	Varia	Cabart	40 = -41 = (26 - 60)/44 = -41 = (27 - 60)	ECC	MGC,	/	10/214	10/69
κwon, ι. Η.	2014	Norea	Conort	40 months $(30-00)/44$ months $(37-60)$	EGU	Dysplasia	/	8/214	3/69
Abbreviations	: EGC, e	arly gastric	cancer; IQ	R, inter-quartile range; MGC, metachronous gastric cancer;	RCT, randomized con	ntrolled trial.			

Supplementary Table 1. The brief characteristics and extracted data of the included studies.

Supplementar	upplementary Table 1. The brief characteristics and extracted data of the included studies. (continued)													
Study	Voor	Country	Docian	Follow-up period (range)	Drimory diagona	MCL outcome	Ε	vent/total nu	nber					
Study	Ital	Country	Design	(Negative)/Eradicated/Persistent	I I IIIai y uisease	WIGL outcome	Negative	Eradicated	Persistent					
Kim, Y. I.	2014	Korea	Cohort	4.1 years (range 3.1–5.8)/5.3 years (range 4.0–8.3)/4.6 years (range 3. 1–6.1)	EGC	MGC	13/218	2/49	16/107					
						MGC	/	7/213	11/212					
Chei I	2014	Vorac	Open label	36.7 months (range 23.9–54.8) /36.2 months	ECC and dyanlasis	Low-grade dysplasia	/	3/176	6/174					
Choi, J.	2014	Kolea	RCT	(range 23.8–54.0)	EOC and dyspiasia	High-grade dysplasia	/	0/50	0/55					
						MGC and dysplasia	/	10/439	17/441					
Bae, S. E.	2014	Korea	Cohort	59.0 months (range 24 – 116)/ 59 months (range 24 – 137) /61.5 months(range 24 – 114)	EGC	MGC	17/340	34/485	24/182					
Maehata, Y.	2012	Japan	Cohort	3.0years (range 1.1-11.1)/ 3.0 years (range 1.1-10.3)	EGC	MGC	/	15/177	13/91					
Shiotani, A.	2008	Japan	Cohort	33 months (range 24–48)	EGC	MGC	1/9	9/80	1/11					
Fukase, K.	2008	Japan	Open label RCT	3 years	EGC	MGC	/	9/255	24/250					
Nakagawa, S.	2006	Japan	Cohort	2.6years (range 0.5-8)/1.8years (range 0.5-12)	EGC	MGC	/	8/356	129/2,479					

Abbreviations: EGC, early gastric cancer; IQR, inter-quartile range; MGC, metachronous gastric cancer; RCT, randomized controlled trial.

			Se	lection		Comparability		Outcome		
Study	Year	Representativeness of the exposed	Selection of the non-exposed	Ascertainment of exposure	Demonstration that outcome of interest was not present at	Comparability of cohorts on the basis of the design	Assessment of outcome	Was follow-up long enough for outcomes to	Adequacy of follow-up	Score
		cohort	cohort	•	start of study	or analysis		occur?	cohorts	
Yoo, H. W.	2023	1	1	1	1	1	1	1	1	8
Noh, C. K.	2023	1	1	1	1	1	1	1	0	7
Nakata, R.	2021	1	1	1	1	1	1	1	0	7
Kato, M.	2021	1	1	0	1	1	1	1	0	6
Ikeda, R.	2021	1	0	1	1	1	1	1	0	6
Okada, K.	2019	1	1	1	1	1	1	1	1	8
Han, S. J.	2018	1	1	0	1	1	1	1	0	6
Kwon, Y.	2017	1	1	1	1	1	1	1	0	7
Chung, C. S.	2017	1	1	1	1	1	1	1	0	7
Mori, G.	2016	1	1	1	1	1	1	1	1	8
Kim, S. B.	2016	1	1	1	1	0	1	1	0	6
Shin, S. H.	2015	1	1	1	1	0	1	1	0	6
Jung, S.	2015	1	1	1	1	0	1	1	1	7
Kwon, Y. H.	2014	1	1	1	1	1	1	1	1	8
Kim, Y. I.	2014	1	1	1	1	1	1	1	1	8
Bae, S. E.	2014	1	1	1	1	1	1	1	1	8
Maehata, Y.	2012	1	1	1	1	1	1	1	1	8
Shiotani, A.	2008	1	1	1	1	0	1	1	1	7
Nakagawa, S.	2006	1	1	1	1	1	1	1	1	8

Supplementary Table 2. Newcastle-Ottawa scores for included cohort studies. #

Studies were awarded a maximum of two points for the category "Comparability of cohorts on the basis of the design or analysis"; but for other categories, only a maximum of one point can be given.

Study	Year	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Choi, J. M.	2018	1	1	1	?	0	1	1
Choi, J.	2014	1	?	0	?	0	?	1
Fukase, K.	2008	1	?	0	1	0	?	1

Supplementary Table 3. Cochrane risk of bias tool for included RCTs. #

Reviewers' judgment about each risk of bias for each included RCT, "0" for low risk of bias, "1" for high risk of bias, "?" for unclear risk of bias.

Study	Events Tota	I Events Total	Risk Ratio	RR	95%-CI	(common)	(random)
sub_design = cohort							
Han, S. J. 2018	18 196	6 20 157		0.72	[0.40; 1.32]	32.5%	17.8%
Kwon, Y 2017	8 27	7 11 56		1.51	[0.69; 3.31]	10.5%	14.8%
Kim, S. B. 2016	1 42	2 7 95		0.32	[0.04; 2.54]	6.3%	4.3%
Shin, S. H 2015	7 36	5 19 124		1.27	[0.58; 2.78]	12.5%	14.9%
Jung, S. 2015	21 506	6 4 366		3.80	[1.31; 10.97]	6.8%	11.1%
Kim, Y. I 2014	16 107	7 13 218		2.51	[1.25; 5.02]	12.5%	16.3%
Bae, S. E 2014	24 182	2 17 340		2.64	[1.46; 4.78]	17.3%	18.0%
Shiotani, A 2008	1 11	1 1 9		0.82	[0.06; 11.33]	1.6%	2.9%
Common effect model	1107	7 1365	•	1.61	[1.22; 2.13]	100.0%	
Random effects mode				1.58	[0.98; 2.53]		100.0%
Heterogeneity: $I^2 = 58\%$, a	$p^2 = 0.2312, p =$	0.02	3				
Common effect model	1107	7 1365		1.61	[1.22; 2.13]	100.0%	
Random effects mode				1.58	[0.98; 2.53]		100.0%
11 stars consiture $l^2 = 500/c$	2 - 0.0010	0.02	01 051 2 10				
Test for subgroup difference	= 0.2312, p =	0.02	0.1 0.5 1 2 10 = 0.(n = NA)				
Test for subgroup difference	es (continuit en	$\chi_0 = 0.00, \text{ df}$	= 0 (p - NA) = 0 (p = NA)				
Han, S. J. 2018 Kwon, Y 2017 Kim, S. B. 2016 Shin, S. H 2015 Jung, S. 2015 Kim, Y. I 2014 Bae, S. E 2014 Shiotani, A 2008 Common effect model Random effects model Heterogeneity: $I^2 = 58\%$, 1 Common effect model Random effects model Heterogeneity: $I^2 = 58\%$, 1 Test for subgroup difference Test for subgroup difference	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.1 0.5 1 2 10 = 0 (p = NA) = 0 (p = NA)	0.72 1.51 0.32 1.27 3.80 2.51 2.64 0.82 1.61 1.58	[0.40; 1.32] [0.69; 3.31] [0.04; 2.54] [0.58; 2.78] [1.31; 10.97] [1.25; 5.02] [1.46; 4.78] [0.06; 11.33] [1.22; 2.13] [0.98; 2.53] [1.22; 2.13] [0.98; 2.53]	32.5% 10.5% 6.3% 12.5% 6.8% 17.3% 100.0% 	17.8% 14.8% 4.3% 14.9% 11.1% 16.3% 18.0% 2.9%

Supplementary Figure 1. Forest plot of subgroup analysis between persistent and negative patients stratified by study design.



Supplementary Figure 2. Forest plot of subgroup analysis between persistent and negative patients stratified by country.

Study	Persi Events	istent Total	Neg Events	gitive Total	Risk Ratio	RR	95%-CI	Weight (common)	Weight (random)
sub_primary = EGC Han, S. J. 2018 Kwon, Y 2017 Kim, S. B. 2016 Kim, Y. I 2014 Bae, S. E 2014 Shiotani, A 2008 Common effect model Random effects model Heterogeneity: $I^2 = 63\%$, τ	18 8 16 24 1 2 ² = 0.2920	196 27 42 107 182 11 565	20 11 7 13 17 1	157 56 95 - 218 340 9 875		0.72 1.51 0.32 2.51 2.64 0.82 1.48 1.42	[0.40; 1.32] [0.69; 3.31] [0.04; 2.54] [1.25; 5.02] [1.46; 4.78] [0.06; 11.33] [1.09; 2.02] [0.79; 2.57]	32.5% 10.5% 6.3% 12.5% 17.3% 1.6% 80.7%	17.8% 14.8% 4.3% 16.3% 18.0% 2.9% 74.1%
sub_primary = D Shin, S. H 2015	7	36	19	124		1.27	[0.58; 2.78]	12.5%	14.9%
sub_primary = EGC_D Jung, S. 2015	21	506	4	366		3.80	[1.31; 10.97]	6.8%	11.1%
Common effect model Random effects model		1107		1365		1.61 1.58	[1.22; 2.13] [0.98; 2.53]	100.0% 	 100.0%
Heterogeneity: I^2 = 58%, τ Test for subgroup difference Test for subgroup difference	² = 0.2312 es (comm es (randor	2, p = 0 ion effe m effec	0.02 ect): $\chi_2^2 = 3$ ects): $\chi_2^2 = 3$.07, df = .03, df =	0.1 0.5 1 2 10 = 2 (p = 0.22) = 2 (p = 0.22)				

Supplementary Figure 3. Forest plot of subgroup analysis between persistent and negative patients stratified by primary disease.



Supplementary Figure 4. Forest plot of subgroup analysis between persistent and negative patients stratified by outcome pattern.

Study	Eradicate Events Tota	d Neg alEvents	itive Total	Risk Ratio	RR	95%-CI	Weight (common)	Weight (random)
sub_design = cohort Han, S. J. 2018 Kwon, Y 2017 Kim, S. B. 2016 Shin, S. H 2015 Jung, S. 2015 Kim, Y. I 2014 Bae, S. E 2014 Shiotani, A 2008 Common effect model Random effects mode Heterogeneity: I ² = 70%, 7	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2 20 8 11 0 7 2 19 9 4 9 13 5 17 0 1 5	157 56 95 124 366 218 340 9 1365		0.44 0.46 0.34 0.53 5.41 0.68 1.40 1.01 0.80 0.79	[0.22; 0.88] [0.25; 0.85] [0.09; 1.28] [0.26; 1.10] [1.72; 17.02] [0.16; 2.94] [0.80; 2.47] [0.14; 7.10] [0.61; 1.06] [0.43; 1.45]	23.5% 19.5% 8.0% 19.3% 2.6% 4.9% 20.4% 1.8% 100.0%	15.4% 16.0% 10.1% 15.1% 11.4% 9.2% 16.4% 6.5% 100.0%
Common effect model Random effects mode Heterogeneity: $I^2 = 70\%$, 7 Test for subgroup difference	160 I $t^2 = 0.5068, p < common e$	5 • 0.01 ffect): x ² = 0	1365	0.1 0.5 1 2 10	0.80 0.79	[0.61; 1.06] [0.43; 1.45]	100.0% 	 100.0%
Test for subgroup difference	ces (random eff	$\chi_0 = 0.$ (ects): $\chi_0^2 = 0.$.00, df	= 0 (p = NA)				

Supplementary Figure 5. Forest plot of subgroup analysis between eradicated and negative patients stratified by study design.

Study	Eradicated Events Total E	Negitive Events Total	Risk Ratio	RR	95%-CI	Weight (common)	Weight (random)
sub_country = Korea Han, S. J. 2018 Kwon, Y 2017 Kim, S. B. 2016 Shin, S. H 2015 Jung, S. 2015 Kim, Y. I 2014 Bae, S. E 2014 Common effect model Random effects model Heterogeneity: l^2 = 74%, T	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	20 157 11 56 7 95 19 124 4 366 13 218 17 340 1356		0.44 0.46 0.34 0.53 - 5.41 0.68 1.40 0.80 0.78	[0.22; 0.88] [0.25; 0.85] [0.09; 1.28] [0.26; 1.10] [1.72; 17.02] [0.16; 2.94] [0.80; 2.47] [0.60; 1.05] [0.40; 1.50]	23.5% 19.5% 8.0% 19.3% 2.6% 4.9% 20.4% 98.2%	15.4% 16.0% 10.1% 15.1% 11.4% 9.2% 16.4% 93.5%
sub_country = Japan Shiotani, A 2008 Common effect model Random effects model	9 80 1605	1 9 1365		1.01 0.80 0.79	[0.14; 7.10] [0.61; 1.06] [0.43; 1.45]	1.8% 100.0% 	6.5% 100.0%
Heterogeneity: I ² = 70%, τ Test for subgroup difference Test for subgroup difference	f = 0.5068, p < 0.0 ses (common effects) ses (random effects)	01 :t): χ ² = 0.06, df = s): χ ² = 0.06, df =	0.1 0.5 1 2 10 : 1 (<i>p</i> = 0.81) : 1 (<i>p</i> = 0.80)				

Supplementary Figure 6. Forest plot of subgroup analysis between eradicated and negative patients stratified by country.



Supplementary Figure 7. Forest plot of subgroup analysis between eradicated and negative patients stratified by primary disease.



Supplementary Figure 8. Forest plot of subgroup analysis between eradicated and negative patients stratified by outcome pattern.

	Erad	icated	Pers	sistent				Weight	Weight
Study	Events	Total	Events	Total	Risk Ratio	RR	95%-CI	(common)	(random)
sub_design = cohort					13 1				
Yoo, H. W 2023	901	34209	2441	35513		0.38	[0.36: 0.41]	84.6%	11.1%
Noh, C. K. 2023	6	163	21	510		0.89	[0.37; 2.18]	0.4%	3.4%
Nakata, R 2021	5	126	17	126		0.29	[0.11; 0.77]	0.6%	3.0%
Kato, M 2021	52	294	35	189		0.96	[0.65; 1.41]	1.5%	7.8%
Ikeda, R 2021	34	315	100	562		0.61	[0.42; 0.87]	2.5%	8.1%
Okada, K. 2019	27	174	33	174		0.82	[0.51; 1.30]	1.2%	6.9%
Han, S. J. 2018	12	212	18	196		0.62	[0.30; 1.25]	0.7%	4.6%
Kwon, Y 2017	33	368	8	27		0.30	[0.16; 0.59]	0.5%	4.9%
Chung, C. S 2017	17	167	7	18		0.26	[0.13; 0.55]	0.4%	4.4%
Kim, S. B. 2016	3	120	1	42		1.05	[0.11; 9.82]	0.1%	0.7%
Shin, S. H 2015	10	122	7	36		0.42	[0.17; 1.03]	0.4%	3.4%
Jung, S. 2015	10	169	21	506		1.43	[0.69; 2.97]	0.4%	4.4%
Kwon, Y. H 2014	18	214	13	69		0.45	[0.23; 0.86]	0.7%	4.9%
Kim, Y. I 2014	2	49	16	107		0.27	[0.07; 1.14]	0.4%	1.6%
Bae, S. E 2014	34	485	24	182		0.53	[0.32; 0.87]	1.2%	6.5%
Maehata, Y. 2012	15	177	13	91		0.59	[0.30; 1.19]	0.6%	4.6%
Shiotani, A 2008	9	80	1	11		1.24	[0.17; 8.85]	0.1%	0.9%
Nakagawa, S 2006	8	356	129	2479		0.43	[0.21; 0.87]	1.1%	4.6%
Common effect model		37800		40838	•	0.41	[0.39; 0.44]	97.3%	
Random effects model					(►)	0.55	[0.44; 0.68]		85.7%
Heterogeneity: $I^2 = 70\%$, τ	$c^2 = 0.1105$	5, p < 0.0	01						
sub design = rct									
Choi J M 2018	18	437	36	440		0.50	[0 29· 0 87]	1.3%	6.0%
Choi. J. 2014	10	439	17	441		0.59	[0.27: 1.28]	0.6%	4.1%
Eukase, K 2008	9	255	24	250		0.37	[0.17:0.78]	0.9%	4.3%
Common effect model		1131		1131		0.48	[0.33: 0.70]	2.7%	
Random effects model						0.48	[0.33: 0.71]		14.3%
Heterogeneity: $I^2 = 0\%$, τ^2	= 0, p = 0	.67					L		
Common effect model		38931		41969		0.42	[0.39; 0.44]	100.0%	
Random effects model						0.54	[0.44; 0.65]		100.0%
2	2				1 1 1 1				
Heterogeneity: $I^2 = 65\%$, τ	r ² = 0.0883	3, p < 0.0	01		0.1 0.5 1 2 10				
Test for subgroup difference	es (comm	ion effec	t): $\chi_{1}^{2} = 0$.	56, df =	1 (p = 0.45)				
Test for subgroup difference	es (rando	m effect	s): χ ₁ ² = 0	.30, df =	1 (p = 0.58)				

Supplementary Figure 9. Forest plot of subgroup analysis between eradicated and persistent patients stratified by study design.

	Erad	icated	Pers	sistent				Weight	Weight
Study	Events	Total	Events	Total	Risk Ratio	RR	95%-CI	(common)	(random)
sub_country = Korea					13 1				
Yoo H W 2023	901	34209	2441	35513		0.38	[0.36:0.41]	84.6%	111%
Noh. C. K. 2023	6	163	21	510		0.89	[0.37: 2.18]	0.4%	3.4%
Han, S. J. 2018	12	212	18	196		0.62	[0.30: 1.25]	0.7%	4.6%
Choi, J. M 2018	18	437	36	440		0.50	[0.29; 0.87]	1.3%	6.0%
Kwon, Y 2017	33	368	8	27		0.30	[0.16; 0.59]	0.5%	4.9%
Chung, C. S 2017	17	167	7	18		0.26	[0.13; 0.55]	0.4%	4.4%
Kim, Š. B. 2016	3	120	1	42		1.05	[0.11; 9.82]	0.1%	0.7%
Shin, S. H 2015	10	122	7	36		0.42	[0.17; 1.03]	0.4%	3.4%
Jung, S. 2015	10	169	21	506		1.43	[0.69; 2.97]	0.4%	4.4%
Kwon, Y. H 2014	18	214	13	69		0.45	[0.23; 0.86]	0.7%	4.9%
Kim, Y. I 2014	2	49	16	107		0.27	[0.07; 1.14]	0.4%	1.6%
Choi, J. 2014	10	439	17	441		0.59	[0.27; 1.28]	0.6%	4.1%
Bae, S. E 2014	34	485	24	182		0.53	[0.32; 0.87]	1.2%	6.5%
Common effect model		37154		38087	4	0.40	[0.37; 0.42]	91.5%	
Random effects mode	2				🔶 🗧	0.49	[0.38; 0.62]		59.8%
Heterogeneity: $I^2 = 49\%$, 1	$t^2 = 0.0739$	9, p = 0.0	02						
and a construction for an									
sub_country = Japan	-	400	47	400		0.00	10 11 0 771	0.00/	0.004
Nakata, R 2021	5	126	1/	126		0.29	[0.11; 0.77]	0.6%	3.0%
	24	294	100	109		0.90	[0.05; 1.41]	1.5%	7.8%
Okada K 2010	34	174	100	174		0.01	[0.42, 0.07]	2.5%	6.0%
Machata V 2012	27	174	33 13	01		0.62	[0.51; 1.30]	1.2%	0.9%
Shiotoni A 2008	10	80	10	11		1.24	[0.30, 1.19]	0.0%	4.0 %
Fukasa K 2008	9	255	24	250		0.37	[0.17, 0.00]	0.1%	4.3%
Nakagawa S 2006	8	356	120	2470		0.37	[0.17,0.70]	1 1%	4.5%
Common effect model	0	1777	129	3882		0.43	[0.21, 0.37]	8.5%	4.0 %
Random effects model				3002	—	0.62	[0.47: 0.82]	0.078	40.2%
Heterogeneity: $l^2 = 39\%$	$r^2 = 0.0606$	$b_{0} = 0$	12			0.01	[0.41, 0.01]		101270
heterogeneity. 7 = 0070,	0.0000	, p = 0.							
Common effect model		38931		41969	4	0.42	[0.39; 0.44]	100.0%	
Random effects mode	l i				▲	0.54	[0.44; 0.65]		100.0%
Heterogeneity: I ² = 65%, a	r ² = 0.0883	3, p < 0.0	01		0.1 0.5 1 2 10				
Test for subgroup difference	ces (comm	ion effec	t): $\chi_1^2 = 19$	9.40, df =	= 1 (p < 0.01)				
Test for subgroup difference	ces (rando	m effect	s): χ ₁ ² = 1.	62, df =	1 (<i>p</i> = 0.20)				

Supplementary Figure 10. Forest plot of subgroup analysis between eradicated and persistent patients stratified by country.

Study	Erad Events	icated Total	Pers Events	sistent Total	Risk Ratio	RR	95%-CI	Weight (common)	Weight (random)
sub primary = D									
Yoo, H. W 2023	901	34209	2441	35513	-	0.38	[0.36: 0.41]	84.6%	11.1%
Noh. C. K. 2023	6	163	21	510		0.89	[0.37: 2.18]	0.4%	3.4%
Shin, S. H 2015	10	122	7	36		0.42	[0.17:1.03]	0.4%	3.4%
Common effect model		34494		36059		0.39	[0.36: 0.42]	85.3%	
Random effects model						0.45	[0.29; 0.71]		17.8%
Heterogeneity: $I^2 = 43\%$, τ	² = 0.0781	, p = 0.1	7						
sub_primary = EGC									
Nakata R 2021	5	126	17	126		0.29	[0.11:0.77]	0.6%	3.0%
Kato M 2021	52	294	35	189		0.96	[0.65:1.41]	1.5%	7.8%
Ikeda, R 2021	34	315	100	562		0.61	[0.42: 0.87]	2.5%	8.1%
Okada, K. 2019	27	174	33	174		0.82	[0.51: 1.30]	1.2%	6.9%
Han, S. J. 2018	12	212	18	196		0.62	[0.30; 1.25]	0.7%	4.6%
Kwon, Y 2017	33	368	8	27		0.30	[0.16; 0.59]	0.5%	4.9%
Chung, C. S 2017	17	167	7	18		0.26	[0.13; 0.55]	0.4%	4.4%
Kim, S. B. 2016	3	120	1	42		1.05	[0.11; 9.82]	0.1%	0.7%
Kwon, Y. H 2014	18	214	13	69	<u>1</u>	0.45	[0.23; 0.86]	0.7%	4.9%
Kim, Y. I 2014	2	49	16	107		0.27	[0.07; 1.14]	0.4%	1.6%
Bae, S. E 2014	34	485	24	182	1	0.53	[0.32; 0.87]	1.2%	6.5%
Maehata, Y. 2012	15	177	13	91		0.59	[0.30; 1.19]	0.6%	4.6%
Shiotani, A 2008	9	80	1	11		1.24	[0.17; 8.85]	0.1%	0.9%
Fukase, K 2008	9	255	24	250		0.37	[0.17; 0.78]	0.9%	4.3%
Nakagawa, S 2006	8	356	129	2479		0.43	[0.21; 0.87]	1.1%	4.6%
Common effect model		3392		4523	•	0.57	[0.49; 0.68]	12.4%	
Random effects model	2					0.53	[0.42; 0.66]		67.8%
Heterogeneity: $I^2 = 40\%$, τ	² = 0.0801	, p = 0.0	5						
sub_primary = EGC_D									
Choi, J. M 2018	18	437	36	440		0.50	[0.29; 0.87]	1.3%	6.0%
Jung, S. 2015	10	169	21	506		1.43	[0.69; 2.97]	0.4%	4.4%
Choi, J. 2014	10	439	17	441		0.59	[0.27; 1.28]	0.6%	4.1%
Common effect model		1045		1387		0.68	[0.47; 0.99]	2.2%	
Random effects model	2		_			0.73	[0.39; 1.38]		14.4%
Heterogeneity: $I^2 = 61\%$, τ	= 0.1908	B, p = 0.0)7						
Common effect model		38931		41969	•	0.42	[0.39: 0.44]	100.0%	
Random effects model					↓ 1	0.54	[0.44; 0.65]		100.0%
Heterogeneity: $I^2 = 65\%$, τ	² = 0.0883	8, p < 0.0	1		0.1 0.5 1 2 10)			
Test for subgroup difference	es (comm	on effect): $\chi_2^2 = 26$	6.04, df =	= 2 (p < 0.01)				
Test for subgroup difference	es (rando	m effects	b): $\chi_2^2 = 1$.	48, df =	2 (p = 0.48)				

Supplementary Figure 11. Forest plot of subgroup analysis between eradicated and persistent patients stratified by primary disease.

Otrada	Erad	icated	Pers	sistent	Diek Detie		0.5% 01	Weight	Weight
Study	Events	Iotai	Events	Total	RISK Ratio	ĸĸ	95%-01	(common)	(random)
sub_outcome = MGC_E)								
Yoo, H. W 2023	901	34209	2441	35513		0.38	[0.36; 0.41]	84.6%	11.1%
Noh, C. K. 2023	6	163	21	510	1	0.89	[0.37; 2.18]	0.4%	3.4%
Kwon, Y 2017	33	368	8	27		0.30	[0.16; 0.59]	0.5%	4.9%
Chung, C. S 2017	17	167	7	18		0.26	[0.13; 0.55]	0.4%	4.4%
Shin, S. H 2015	10	122	7	36		0.42	[0.17; 1.03]	0.4%	3.4%
Jung, S. 2015	10	169	21	506		1.43	[0.69; 2.97]	0.4%	4.4%
Kwon, Y. H 2014	18	214	13	69		0.45	[0.23; 0.86]	0.7%	4.9%
Choi, J. 2014	10	439	17	441		0.59	[0.27; 1.28]	0.6%	4.1%
Common effect model		35851		37120	•	0.39	[0.36; 0.42]	88.0%	
Random effects model					÷	0.49	[0.33; 0.70]		40.4%
Heterogeneity: $I^2 = 62\%$, τ^2	= 0.1694	1, p < 0.0)1						
sub outcome = MGC									
Nakata R 2021	5	126	17	126		0.29	[0 11:0 77]	0.6%	3.0%
Kato M 2021	52	294	35	189		0.20	[0.65:1.41]	1.5%	7.8%
Ikeda R 2021	34	315	100	562		0.61	[0.42: 0.87]	2.5%	8.1%
Okada, K. 2019	27	174	33	174		0.82	[0.51: 1.30]	1.2%	6.9%
Han, S. J. 2018	12	212	18	196		0.62	[0.30: 1.25]	0.7%	4.6%
Choi, J. M 2018	18	437	36	440		0.50	[0.29: 0.87]	1.3%	6.0%
Kim, S. B. 2016	3	120	1	42		1.05	[0.11; 9.82]	0.1%	0.7%
Kim, Y. I 2014	2	49	16	107		0.27	[0.07; 1.14]	0.4%	1.6%
Bae, S. E 2014	34	485	24	182		0.53	[0.32; 0.87]	1.2%	6.5%
Maehata, Y. 2012	15	177	13	91		0.59	[0.30; 1.19]	0.6%	4.6%
Shiotani, A 2008	9	80	1	11		1.24	[0.17; 8.85]	0.1%	0.9%
Fukase, K 2008	9	255	24	250		0.37	[0.17; 0.78]	0.9%	4.3%
Nakagawa, S 2006	8	356	129	2479		0.43	[0.21; 0.87]	1.1%	4.6%
Common effect model		3080		4849	*	0.60	[0.51; 0.71]	12.0%	
Random effects model					►	0.60	[0.49; 0.73]		59.6%
Heterogeneity: $I^2 = 16\%$, τ^2	= 0.0313	3, p = 0.2	29						
Common effect model		38931		41969		0.42	[0.39: 0.44]	100.0%	
Random effects model					•	0.54	[0.44; 0.65]		100.0%
							,		
Heterogeneity: $I^2 = 65\%$, τ^2	= 0.0883	3, p < 0.0	01		0.1 0.5 1 2 10				
Test for subgroup difference	es (comm	ion effect	t): $\chi_1^2 = 2^{-1}$	1.21, df =	= 1 (p < 0.01)				
Test for subgroup difference	es (rando	m effects	s): $\chi_1^2 = 0$.94, df =	1 (<i>p</i> = 0.33)				

Supplementary Figure 12. Forest plot of subgroup analysis between eradicated and persistent patients stratified by outcome pattern.



Supplementary Figure 13. Contour-enhanced meta-analysis funnel plots after Duval and Tweedie trimand fill method between eradicated and

persistent patients