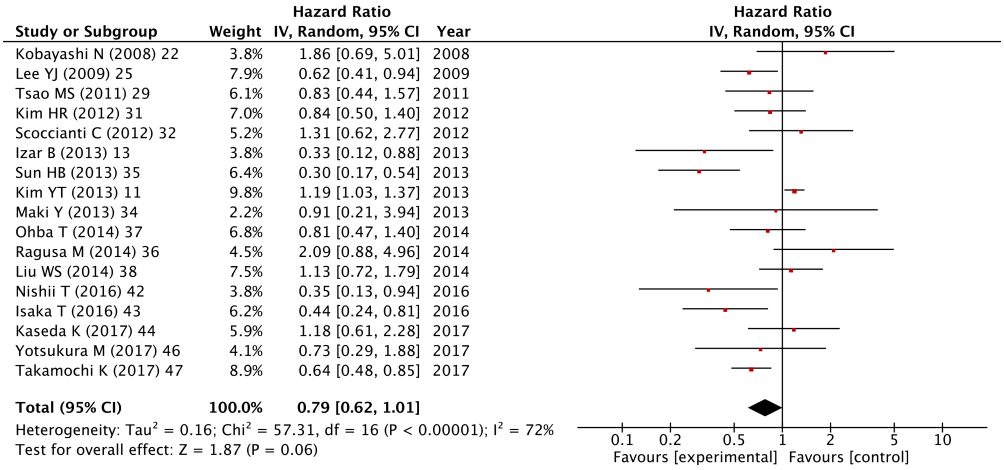
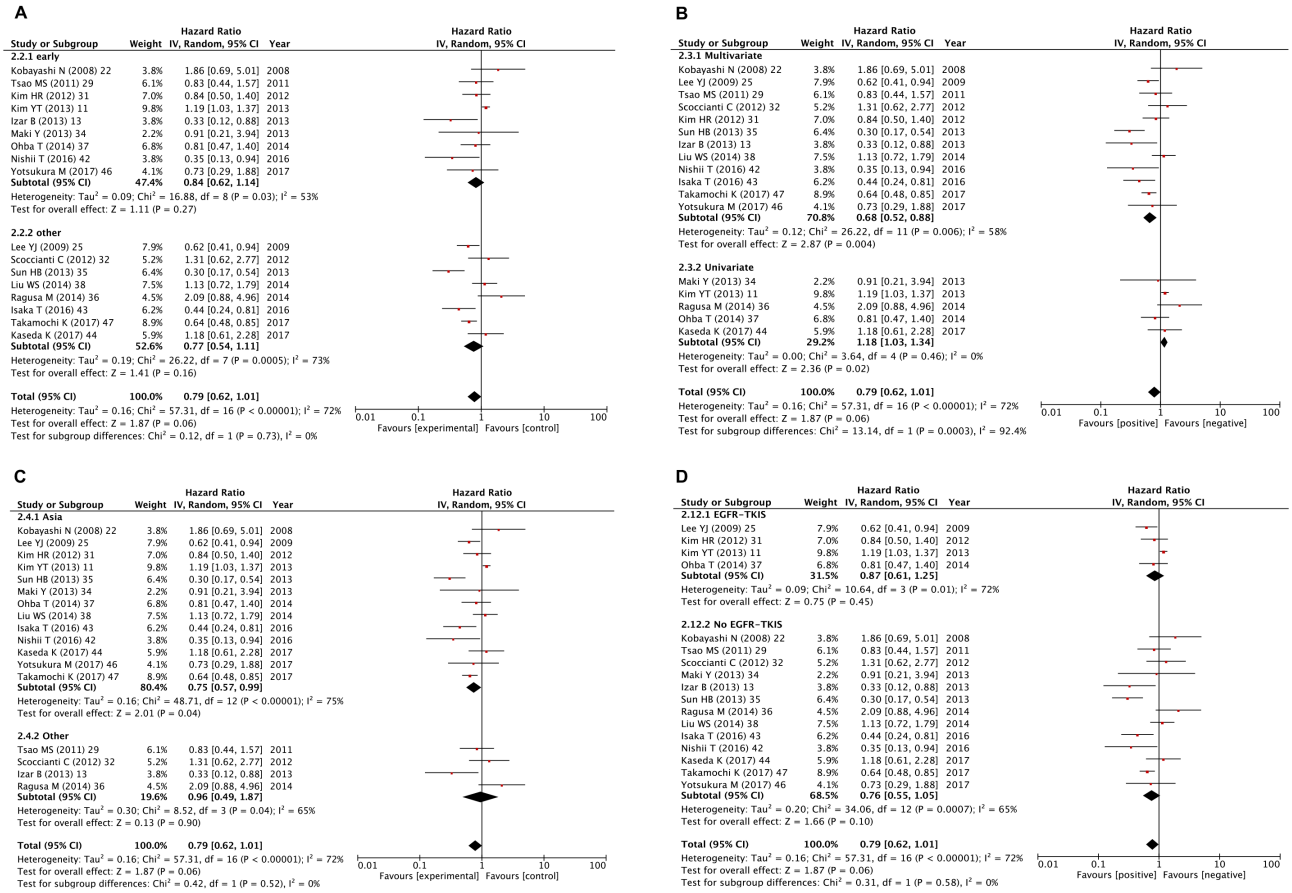
Supplementary materials

Author	Year	Scientific design					Laboratory methodology					Generalizability					Results analysis				Total score
		Study objective definition	Study design	Outcome definition	Statistical considerations	Statistical methods	Blinding	Sample description and conservation	Description of the experimental process	Description of the negative and positive control procedures	Test reproducibility control	Patient selection criteria	Patients characteristics	Treatment description	Source of samples	unassessable samples	Follow-up description	Survival analysis according to the marker	Univariate analysis	Multivariate analysis	
Na II[19]	2007	1	1	1	0	1	2	2	2	0	0	1	2	1	2	0	2	2	1	0	21
Suehisa H[20]	2007	2	1	2	0	2	2	2	1	2	2	1	2	2	2	1	2	2	1	2	31
Marks JL[21]	2008	2	1	2	1	2	2	2	1	0	1	2	2	1	2	2	2	2	1	2	30
Kobayashi N[22]	2008	1	1	1	0	1	2	2	1	0	0	2	1	2	2	2	1	2	2	2	25
Woo T[24]	2009	1	1	2	1	2	2	2	2	1	0	2	2	2	2	1	1	2	2	2	30
Hosokawa S[23]	2009	1	1	2	1	2	2	2	1	1	0	2	1	2	2	2	2	2	1	2	29
Lee YJ[25]	2009	1	1	2	0	2	2	1	1	0	0	2	2	1	2	2	2	2	2	2	27
Galleges[26]	2009	2	2	2	0	2	2	2	2	2	2	2	2	1	2	0	1	2	2	2	32
Kosaka T[27]	2009	1	1	2	0	2	2	2	2	0	0	2	2	1	2	0	2	2	1	2	26
Liu HP[28]	2010	1	1	1	1	2	2	2	1	1	0	2	2	2	2	2	2	2	0	2	28
Tsao MS[29]	2011	2	2	2	0	2	2	2	2	1	2	1	1	1	2	1	2	1	0	2	28
D'Angelo SP[30]	2012	1	1	1	1	1	2	1	1	0	0	2	2	1	2	2	1	2	0	1	22
Kim HR[31]	2012	2	1	1	1	1	2	1	1	0	0	1	2	2	2	1	2	1	0	2	23
Scoccianti C[32]	2012	2	2	1	1	2	2	2	1	0	1	2	2	1	2	2	2	1	0	2	28
Sonobe M[33]	2012	1	2	2	0	1	2	2	2	1	1	1	2	2	2	0	2	2	1	2	28
Izar B[13]	2013	1	1	1	0	1	2	1	1	1	1	2	2	1	2	2	2	2	1	2	26
Sun HB[35]	2013	1	1	2	0	2	2	2	1	0	0	1	2	1	2	1	2	2	2	2	26
Kim YT[11]	2013	2	1	1	1	2	2	2	2	0	1	1	2	2	2	2	1	2	0	2	28
Maki Y[43]	2013	1	1	1	0	2	2	2	1	1	1	2	2	1	2	1	1	2	1	1	25
Ragusa M[17]	2014	1	1	2	0	2	2	2	1	0	1	1	2	1	2	0	1	2	2	2	25
Ohba T[37]	2014	1	1	2	0	1	2	2	2	0	0	1	2	1	2	1	1	2	1	1	23
Liu WS[38]	2014	2	1	2	0	2	2	0	1	0	0	2	2	2	2	2	2	1	2	2	27
Ayyoub M[39]	2014	1	1	1	0	2	2	2	1	1	0	1	1	1	2	1	1	1	1	0	20
Kudo Y[40]	2015	2	1	2	0	2	2	2	1	1	0	2	2	1	2	2	2	2	2	2	30
Nadal E[41]	2015	1	1	2	0	2	2	1	1	1	0	1	2	2	2	1	2	2	2	2	27
Nishii T[42]	2016	1	1	2	0	1	2	2	1	0	0	1	2	0	2	0	1	2	0	2	20
Kadota K[16]	2016	2	1	2	0	2	2	2	1	0	1	2	2	0	2	1	1	2	1	2	26
Isaka T[43]	2016	1	1	2	0	2	2	2	1	0	0	2	2	2	2	2	2	2	0	2	27
Zheng D[17]	2016	1	1	2	1	2	2	2	1	0	0	1	2	1	2	0	1	2	0	2	23
Kaseda K[44]	2017	2	1	2	0	2	2	2	2	1	0	1	2	2	2	1	1	2	2	0	27
Sullivan I[45]	2017	1	1	2	0	2	2	2	1	1	0	2	2	1	2	0	1	2	0	2	24
Yotsukura M[46]	2017	1	1	1	0	1	2	2	1	0	1	2	2	1	2	1	2	2	0	2	24
Takamochi K[47]	2017	1	1	2	1	2	2	2	1	0	1	1	2	1	2	1	2	2	0	2	26

TableS1. Score of quality assessment for included studies



FigureS1 Random-effect model forest plot of DFS of EGFR mutations.



FigureS2 A. Random-effect model forest plot of DFS of EGFR mutations in stage subgroup analysis according to the patient's pathological staging. **B.** Random-effect model forest plot of DFS in statistical analysis method subgroup analysis according to EGFR mutations. **C.** Random-effect model forest plot of DFS of EGFR mutations in race subgroup analysis according to source of the studies. **D.** Random-effect model forest plot of DFS of EGFR mutations in EGFR-TKIs subgroup analysis according to the adjuvant treatment.

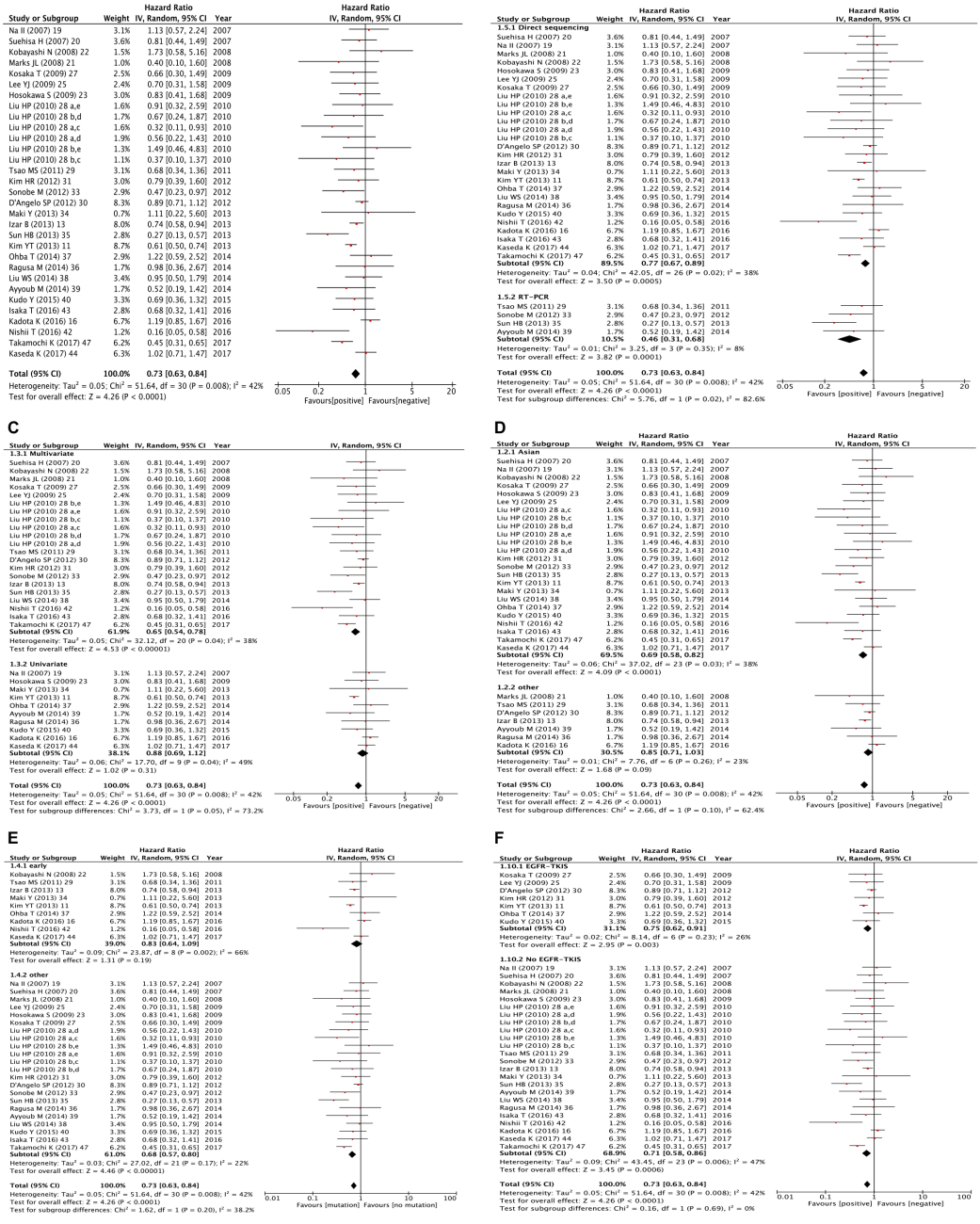
Begg's Test

adj. Kendall's Score (P-Q) =	**16**
Std. Dev. of Score =	**24.28**
Number of Studies =	**17**
z =	**0.66**
Pr > |z| =	**0.510**
z =	**0.62** (continuity corrected)
Pr > |z| =	**0.537** (continuity corrected)

Egger's test

Std_Eff	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
slope	.1382493	.1589251	0.87	0.398	-.2004915	.4769902
bias	-1.227112	.7356253	-1.67	0.116	-2.79506	.3408361

FigureS3. Begg's test and Egger's test for publication bias of DFS of EGFR



FigureS4 A. Random-effect model forest plot of OS of EGFR mutations. **B.** Random-effect model forest plot of OS in detection method group analysis according to EGFR mutations. **C.** Random-effect model forest plot of OS in statistical analysis method group analysis according to EGFR mutations. **D.** Random-effect model forest plot of OS of EGFR mutations in race subgroup analysis according to source of the studies. **E.** Random-effect model forest plot of OS of EGFR mutations in stage subgroup analysis according to the patient's pathological staging. **F.** Random-effect model forest plot of OS of EGFR mutations in EGFR-TKIs subgroup analysis according to the adjuvant treatment.

Comment:

a: All patients

b: Five patients with no data at the EGFR mutation variable, and 18 patients who had received TKI treatment for tumor recurrence were not included

c: Mutation site: L858R

d: Mutation site: 19 Del

e: Mutation site: others

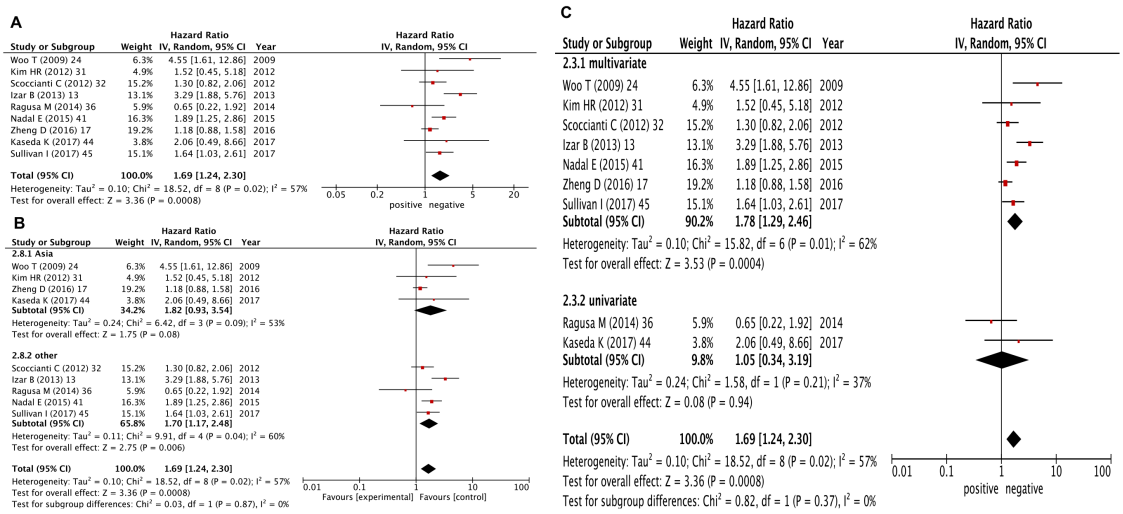
Begg's Test

```
  adj. Kendall's Score (P-Q) =     -77
         Std. Dev. of Score =   56.05
          Number of Studies =      30
                          z  =   -1.37
                  Pr > |z| =   0.170
                          z  =    1.36 (continuity corrected)
                  Pr > |z| =   0.175 (continuity corrected)
```

Egger's test

Std_Eff	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
slope	-.238729	.1098073	-2.17	0.038	-.4636592	-.0137989
bias	-.2312069	.4302375	-0.54	0.595	-1.112508	.6500947

FigureS5. Begg's test and Egger's test for publication bias of OS of EGFR



FigureS6 A. Random-effect model forest plot of DFS of KRAS mutations **B.** Random-effect model forest plot of DFS of KRAS mutations in race subgroup analysis according to source of the studies. **C.** Random-effect model forest plot of DFS in statistical analysis method subgroup analysis according to KRAS mutations.

Begg's Test

```
adj. Kendall's Score (P-Q) =      0
        Std. Dev. of Score =  16.39
      Number of Studies    =     13
                       z   =   0.00
                 Pr > |z|  =  1.000
                       z   =  -0.06 (continuity corrected)
                 Pr > |z|  =  1.000 (continuity corrected)
```

Egger's test

Std_Eff	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
slope	.3343489	.2118974	1.58	0.143	-.132034	.8007319
bias	.2638412	.7738037	0.34	0.740	-1.439289	1.966972

FigureS7. Begg's test and Egger's test for publication bias of OS of KRAS

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