

Circulating miR-223 in diagnosing cancers

Table S1. QUADAS assessment for the eligible studies

Enrolledstudy	Items of QUADAS													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Xu/2012	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Zhang/2010	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Zhu/2011	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Li/2012	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Sara/2012	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Jia/2013	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Kim/2013	N	Y	Y	Y	Y	U	Y	Y	Y	U	Y	Y	Y	Y
Geng/2014	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Zheng/2014	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Wang/2014	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y
Wu/2014	N	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y

1 Was the spectrum of patients representative of the patients who will receive the test in practice? 2 Were selection criteria clearly described? 3 Is the reference standard likely to correctly classify the target condition? 4 Is the time period between reference standard and index test short enough to be reasonably sure that the target condition did not change between the two tests? 5 Did the whole sample or a random selection of the sample, receive verification using a reference standard of diagnosis? 6 Did patients receive the same reference standard regardless of the index test result? 7 Was the reference standard independent of the index test (i.e. the index test did not form part of the reference standard)? 8 Was the execution of the index test described in sufficient detail to permit replication of the test? 9 Was the execution of the reference standard described in sufficient detail to permit its replication? 10 Were the index test results interpreted without knowledge of the results of the reference standard? 11 Were the reference standard results interpreted without knowledge of the results of the index test? 12 Were the same clinical data available when test results were interpreted as would be available when the test is used in practice? 13 Were uninterpretable/intermediate test results reported? 14 Were withdrawals from the study explained?

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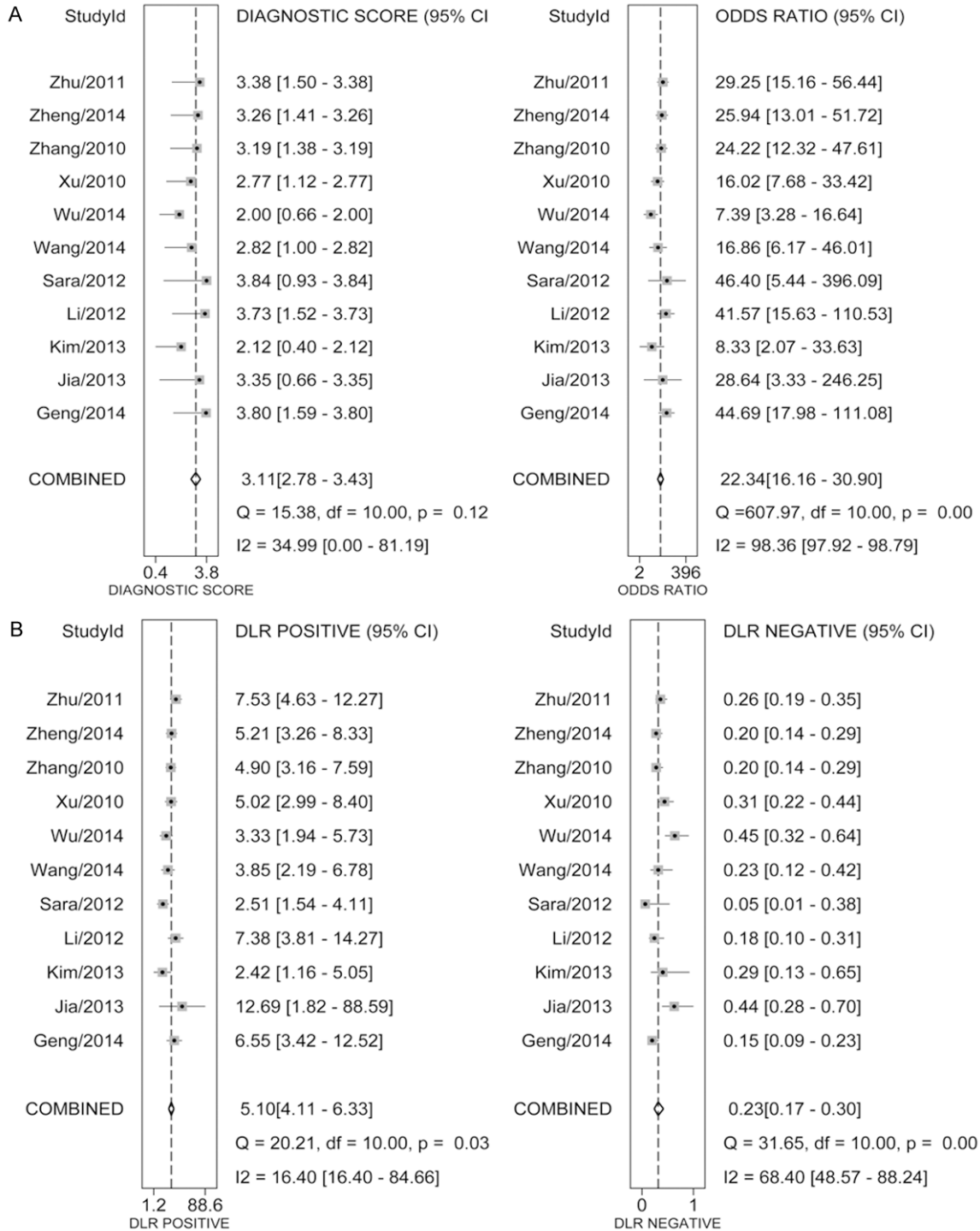


Figure S1. Forest plots for pooled results for diagnosing cancer in circulating miR-223 for (A) diagnostic score and odds ratio; (B) PLR and NLR.

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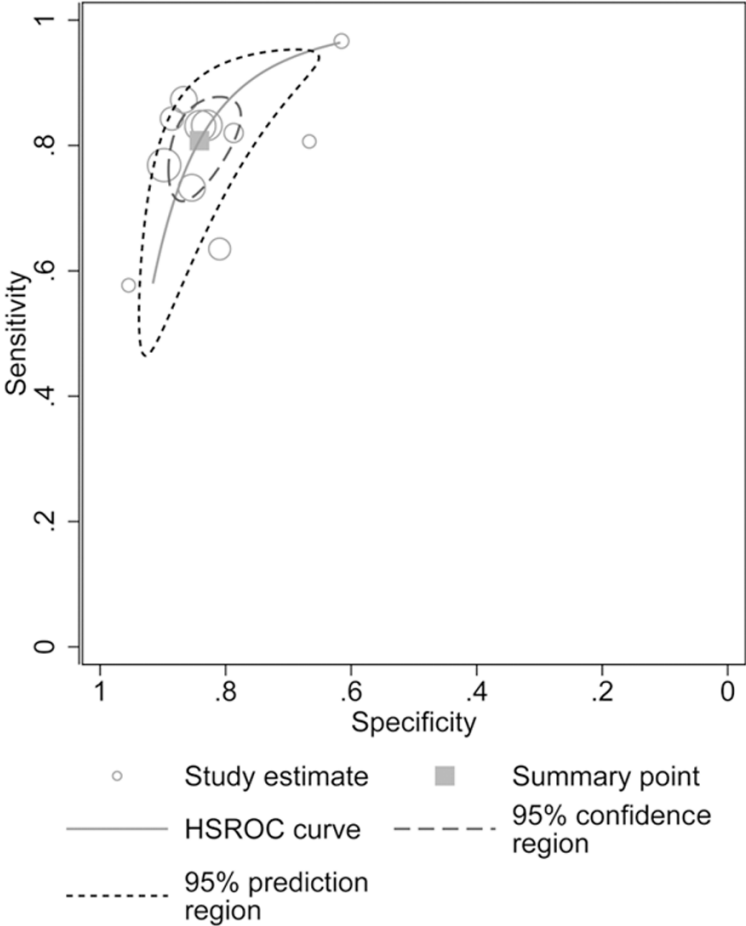


Figure S2. Summary receiver operating characteristic curves (SROC) of miR-223 describes the diagnostic performance. Every square stands for a study. The SROC curve is symmetric and the AUC is 0.89, which intimates a moderate diagnostic accuracy for diagnosing cancers.

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Table S2. Meta-regression analysis of different parameters regarding the heterogeneity

Parameter	Category	Studies	Sensitivity	P value	specificity	P value
Sample type	Plasma	2	0.86 (0.77-0.96)	0.28	0.88 (0.81-0.95)	0.04
	serum	8	0.79 (0.73-0.86)		0.82 (0.77-0.87)	
Normalization	U6	3	0.74 (0.64-0.85)	0.01	0.89 (0.83-0.92)	0.00
	miRNA	5	0.79 (0.72-0.86)		0.85 (0.80-0.89)	
Cancer type	Gastrointestinal	7	0.80 (0.72-0.87)	0.01	0.83 (0.78-0.88)	0.00
	Others	4	0.83 (0.74-0.92)		0.86 (0.80-0.92)	
Ethnicity	Asian	10	0.97 (0.90-1.00)	0.03	0.62 (0.43-0.80)	0.00
	Others	1	0.79 (0.74-0.84)		0.85 (0.83-0.88)	

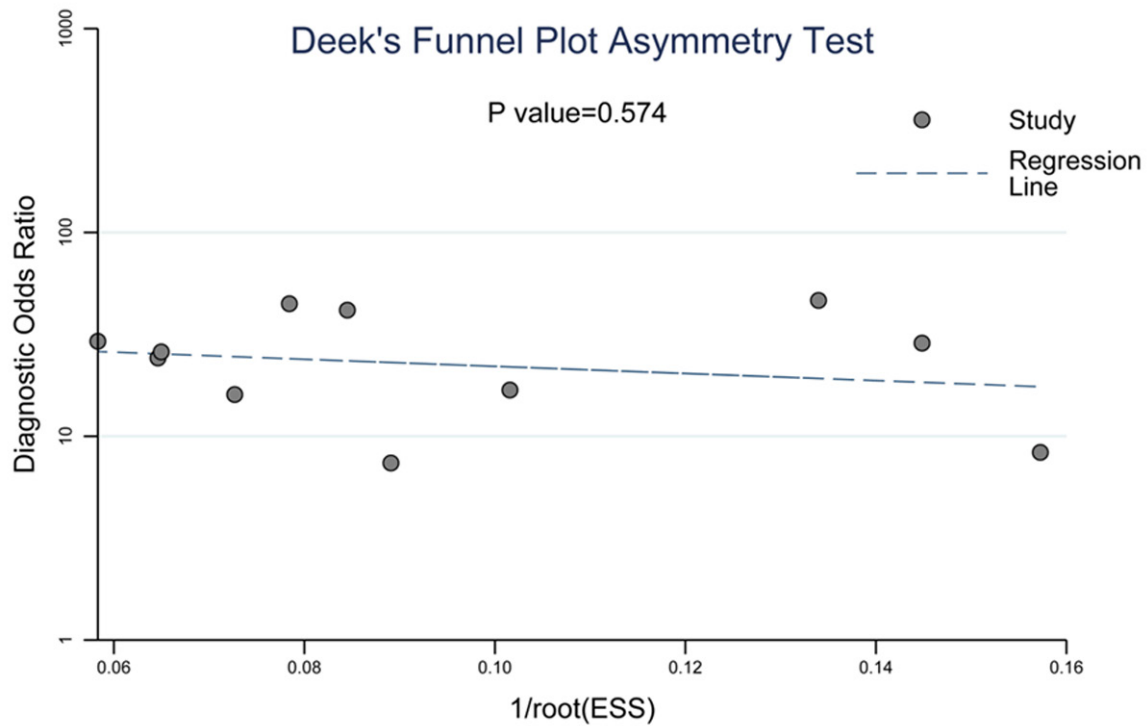


Figure S3. Publication bias from Deek's test is shown by funnel plots. It is performed by funnel plot. Every point represents one study and the line is the regression line. It shows no publication bias exists ($P > 0.1$).

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Table S3. Characteristics of gastric cancer patients for plasma miRNAs expression analysis in the validation study

Characteristics	Cases (n=50)	Controls (n=50)	P value
Age (years: mean \pm SD)	57.81 \pm 10.6	56.77 \pm 11.1	0.776
Gender			
Male	34 (68%)	32 (64%)	0.673
Female	16 (32%)	18 (36%)	
Smoking status			
Yes	29 (58%)	26 (52%)	0.546
No	21 (42%)	24 (48%)	
Drinking status			
Yes	25 (50%)	26 (52%)	0.841
No	25 (50%)	24 (48%)	
Family history of cancer			
Yes	12 (24%)	8 (16%)	0.317
No	38 (76%)	42 (84%)	
Tumor stage			
I+II	19 (38%)		
III+IV	31 (62%)		
Metastatic status			
Yes	30 (60%)		
No	20 (40%)		