

Diagnostic and prognostic value of circulating tumor DNA in gastric cancer: a meta-analysis

Supplementary Materials

Supplementary Table S1: Information of included genes and their main functions

	Full name	Gene function	Gene location
APC	APC	Signal transduction	5q22.2
BCL6B	B-cell CLL/lymphoma 6B	Signal transduction	17p13.1
E-cadherin	E-cadherin	Adhesion/invasiveness	16q22.1
MINT2	Amyloid beta precursor protein binding family A member 2	Signal transduction	15q11-q12
OSR2	Odd-skipped related transcription factor 2	Apoptosis/Proliferation	8q22.2
P16	Cyclin dependent kinase inhibitor 2A	Signal transduction	9p21
PCDH10	Protocadherin 10	Adhesion/Invasiveness	4q28.3
PPFIA3	PTPRF interacting protein alpha 3	Apoptosis/Proliferation	19q13.33
RASSF1A	Ras association domain family member 1	Apoptosis/Proliferation	3p21.3
RUNX3	Runt related transcription factor 3	Apoptosis/Proliferation	1p36
SFRP1	Secreted frizzled related protein 1	Signal transduction	8p11.21
SOX17	SRY-box 17	Adhesion/Invasiveness	8q11.23
SPG20	Spastic paraplegia 20	Signal transduction	13q13.3
TFPI2	Tissue factor pathway inhibitor-2	Signal transduction	7q22
TIMP3	TIMP metalloproteinase inhibitor 3	Adhesion/Invasiveness	22q12.3
VAV3	Vav guanine nucleotide exchange factor 3	Signal transduction	1p13.3
XAF1	XIAP associated factor 1	Apoptosis/Proliferation	17p13.1

Supplementary Table S2: Results of diagnosis quality assessment of included studies according to the QUADAS-2 tool criteria L: low risk of bias; H: high risk of bias; U: unclear risk of bias

Study	Risk of Bias				Applicability Concerns		
	Patients Selection	Index Test	Reference Standard	Flow and Time	Patients Selection	Index Test	Reference Standard
WK Leung ⁸	L	L	U	L	H	L	L
Mohammad R.A. ⁹	L	L	L	U	L	L	L
Wang YC ¹⁰	L	L	U	L	L	L	L
Chouhei.S ¹¹	L	L	L	L	L	H	L
Kenji H. ¹²	H	H	L	L	H	L	L
Ioanna B. ¹³	H	L	L	L	H	L	L
Yang QF ¹⁴	L	L	L	L	L	L	L
Zhi QL ¹⁵	L	L	L	L	L	L	L
Han J ¹⁶	L	L	L	L	L	L	L
Wu YC ¹⁷	L	L	L	H	L	L	L
Yu JL ¹⁸	L	L	L	L	H	L	L
Zhang H ¹⁹	L	L	L	L	L	L	L
Chang L ²⁰	L	L	L	L	L	L	L
Ioanna B. (2015) ²¹	H	L	L	H	H	L	L
Charinya P ²²	L	L	L	L	L	L	L
Li WH ²³	L	L	L	L	L	L	L

Supplementary Table S3: The assessment of quality of each study according to the newcastle-ottawa scale

Study	Selection(0-4)				Comparability		Outcome (0-3)			Total
	REC	Snec	AE	OINP	SCB	SCA	AO	FU	AFC	
WK Leung ⁸	1	0	1	1	1	0	1	1	1	7
Mohammad R.A. ⁹	1	1	1	1	1	1	0	0	0	6
Wang YC ¹⁰	1	1	1	0	1	0	1	0	0	5
Chouhei.S ¹¹	1	1	1	0	1	0	1	0	0	5
Kenji H. ¹²	1	1	1	0	1	1	0	0	0	5
Ioanna B. ¹³	1	1	1	1	1	0	1	1	0	7
Yang QF ¹⁴	1	1	1	0	1	0	1	1	0	6
Zhi QL ¹⁵	1	1	1	1	1	1	1	1	0	8
Han J ¹⁶	1	1	1	0	1	0	1	1	0	6
Wu YC ¹⁷	1	1	1	0	1	1	1	1	0	7
Yu JL ¹⁸	1	1	1	1	1	1	1	1	0	8
Zhang H ¹⁹	1	1	1	0	1	0	1	1	0	7
Chang L ²⁰	1	1	1	0	1	0	1	0	0	5
Ioanna B. (2015) ²¹	1	1	1	1	1	0	1	1	1	8
Charinya P ²²	1	1	1	1	1	1	1	1	0	8
Li WH ²³	1	1	1	0	1	0	1	0	0	5

REC: representativeness of the exposed cohort; SNEC: selection of the nonexposed cohort; AE: ascertainment of exposure; OINP: outcome of interest not presented in the start of study; SCB: study controls for basic characteristics; SCA: study controls for additional factor; AO: assessment of outcome; FU: follow-up; AFC: adequacy of follow up.