Supplementary

FIGURE LEGENDS

Figure 1. Flow chart of study selection process

Figure 2. The mixed effect of ACEi and ARBs on all-cause mortality in patients with diabetes and kidney disease

Figure 3. The mixed effect of ACEi and ARBs on the risk of end-stage renal disease in patients with diabetes and kidney disease

Figure 4. The mixed effect of ACEi and ARBs on the risk of hyperkalemia in patients with diabetes and kidney disease

Figure 5. The mixed effect of ACEi and ARBs on the risk of cough in patients with diabetes and kidney disease

Supplementary Tables 1-6

Table 1. Quality of the assessments made in the 8 meta-analyses included in the meta-analysis

Assessment of Multiple Systematic Reviews (AMSTAR) scale ratings of the 8 included systematic reviews and meta-analysis

AMSTAR criteria	Suetonia C Palmer 2015	ChengJ 2014	HaoG 2014	Jicheng Lv 2012	P. Vejakama 2012	Sharma P 2011	Strippoli G. F 2006	Strippoli G. F 2005
1. Was an 'a priori' design provided?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2. Was there duplicate study selection and data extraction?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3. Was a comprehensive literature search performed?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4. Was the status of publication used as an inclusion criterion?	Yes	Yes	Yes	No	No	Yes	No	Yes
5. Was a list of studies provided?	No	Yes	No	Yes	Yes	Yes	Yes	Yes
6. Were the characteristics of the included studies provided?	Yes	Yes	Yes	No	Yes	No	No	No
7. Was the scientific quality of the included studies assessed and documented?	Yes	No	No	Yes	Yes	Yes	Yes	Yes
8. Was the scientific quality of the included studies used appropriately in formulating conclusions?	Yes	Yes	No	No	Yes	Yes	Yes	Yes
9. Were the methods used to combine the findings of studies appropriate?	Yes	Yes	Yes	No	No	Yes	No	No
10. Was the likelihood of publication bias assessed?	No	No	No	Yes	Yes	No	Yes	Yes
11. Was the conflict of interest stated?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Total score (out of 11)	9	10	7	8	9	9	8	9
Overall methodological quality (L=low, M=moderate, H=high)	H	H	M	M	H	H	M	H

Table 2. Effect of ACEi and ARBs on all-cause mortality in patients with diabetes and kidney disease

All-cause mortality							
			The total number of samples	Intervention(study/patient)		(95% CI)	
First author year	Country	Disease	number	ACEi/ARBs vs Placebo	OR/RR	ll	ul
Suetonia C Palmer et.al 2015	New Zealand	type 2 diabetes mellitus, chronic kidney disease	12716	ACEi + calcium-channel blocker 1/335	0·20	0·01	4·17
				ARBs 5/4443	0·91	0·71	1·16
				ACEi 10/7938	0.85	0.61	1.19
Cheng J et.al 2014	China	diabetes mellitus	43457	ACEi 20/25544	0.87	0.78	0.98
				ARB 12/17913	0.94	0.82	1.08
Hao G et.al 2014	China	type 2 diabetes mellitus	18369	ARB/ACE inhibitor 7/18369	0.91	0.83	1
Jicheng Lv et.al 2012	Australia	diabetic kidney disease	19003	ACEI 6/11350	0.84	0.73	0.97
				ARB 5/7653	1.12	0.88	1.41
Sharma P et.al 2011	England	Chronic kidney disease	2177	ACEi 4/2177	0.71	0.53	0.96
Strippoli G. F et.al 2006	Australia	diabetic kidney disease	10704	ACEi 21/7295	0.91	0.71	1.17
				ARBs 5/3409	0.99	0.85	1.17
Strippoli G. F et.al 2005	Australia	diabetic kidney disease	4570	ACEi 10/4570	0.81	0.64	1.02

Table 3. Effect of ACEi and ARBs on the risk of end-stage renal disease in patients with diabetes and kidney disease.

End-stage renal disease							
First author year	Country	Disease	The total number of samples number	Intervention (study/patient)	OR/RR	(95% CI) ll	ul
Suetonia C Palmer et.al 2015	New Zealand	type 2 diabetes mellitus, chronic kidney disease	9807	ACEi 4/6580	0·73	0·47	1·14
				ARBs 3/3227	0·81	0·69	0·96
Jicheng Lv et.al 2012	Australia	diabetic kidney disease	10504	ACEi 3/10504	1.94	0.66	5.07
				ARBs 3/6217	0.5	0.09	2.71
P. Vejakama et.al 2012	Thailand	type 2 diabetes mellitus	12728	ACEi/ARBs 6/2147	0.82	0.64	1.05
				ACEi/ARBs 4/10581	0.8	0.69	0.93
Strippoli G. F et.al 2006	Australia	diabetic kidney disease	10070	ACEi 10/6819	0.6	0.39	0.93
				ARBs 3/3251	0.78	0.67	0.91

Table 4. Effect of ACEi and ARBs on the risk of hyperkalemia in patients with diabetes and kidney disease

Hyperkalaemia							
First author year	Country	Disease	The total number of samples number	Intervention (study/patient)	OR/RR	(95% CI) ll	ul
Suetonia C Palmer et.al 2015	New Zealand	type 2 diabetes mellitus, chronic kidney disease	2194	ARBs 2/1714	2·54	0·94	6·86
				ACEi 3/480	1·63	0·33	7·95
Jicheng Lv et.al 2012	Australia	diabetic kidney disease	5974	ACEi 3/2783	2.98	0.47	18.78
				ARBs 3/3191	2.3	0.69	7.71
Strippoli G. F et.al 2006	Australia	diabetic kidney disease	1219	ACEi 2/1219	0.85	0.32	2.21
Strippoli G. F et.al 2005	Australia	diabetic kidney disease	2594	ACEi 2/2594	2.95	0.31	28.18

Table 5. Effect of ACEi and ARBs on the risk of cough in patients with diabetes and kidney disease

Cough							
						(95% CI)	
First author year	Country	Disease	The total number of samples number	Intervention	OR/RR	ll	ul
Suetonia C Palmer et.al 2015	New Zealand	type 2 diabetes mellitus, chronic kidney disease	22730	ARBs	1·40	0.48	4.13
				ACEi	2.95	1.93	4.51
Jicheng Lv et.al 2012	Australia	diabetic kidney disease	13561	ACEi 6/11791	1.84	1.24	2.72
				ARBs 2/1770	1.01	0.42	2.44
Strippoli G. F et.al 2006	Australia	diabetic kidney disease	7281	ACEi 10/7087	3.17	2.29	4.38
				ARBs 2/194	4.93	1	24.35
Strippoli G. F et.al 2005	Australia	diabetic kidney disease	3725	ACEi 4/3725	1.79	1.19	2.69

Table 6. Effect of ACEi and ARBs on the risk of headache in patients with diabetes and kidney disease

Headache							
			The total number of samples	Intervention		(95% CI)	
First author year	Country	Disease	number		OR/RR	ll	ul
Jicheng Lv et.al 2012	Australia	diabetic kidney disease	13695	ACEi 3/10504	1.19	0.47	3.02
				ARBs 3/3191	0.73	0.52	1.01
Strippoli G. F et.al 2006	Australia	diabetic kidney disease	6186	ACEi 4/6186	0.92	0.33	2.53
Strippoli G. F et.al 2005	Australia	diabetic kidney disease	2438	ACEi 1/2438	1.25	0.44	3.61

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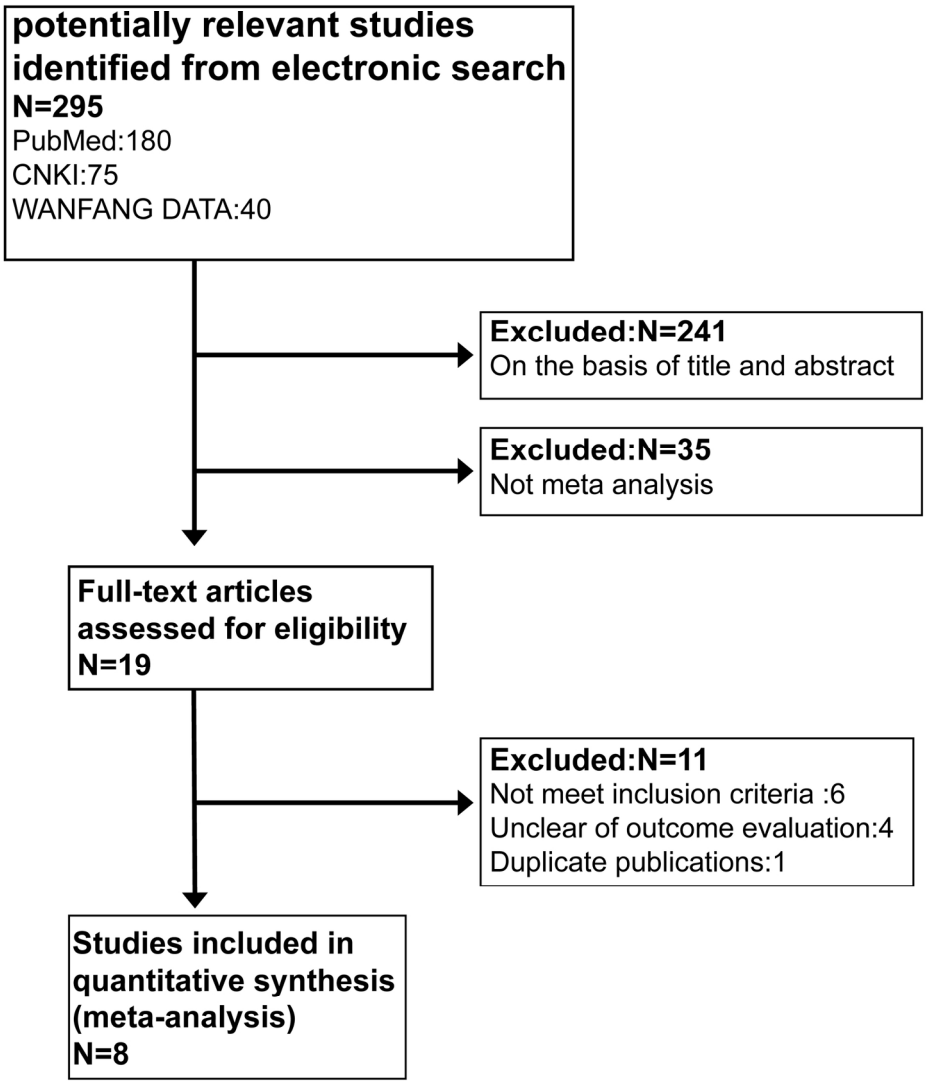

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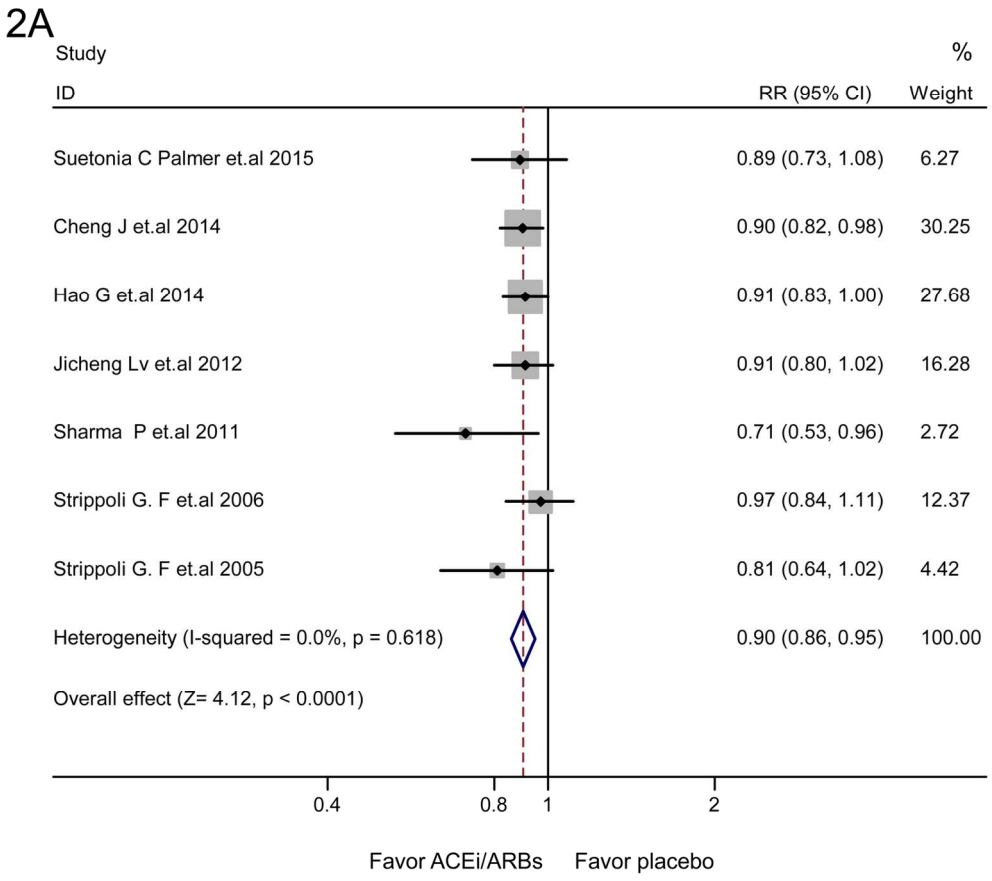

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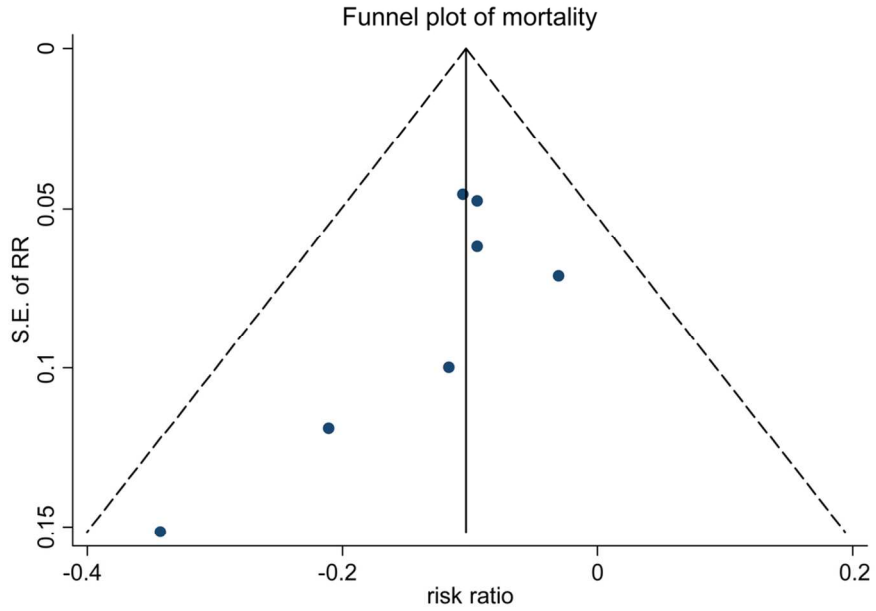

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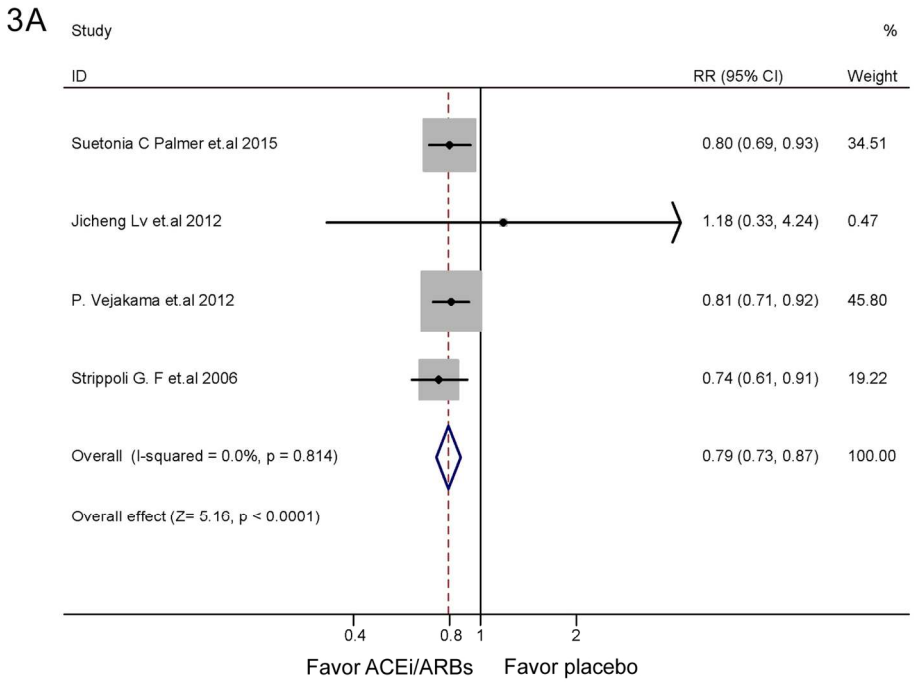

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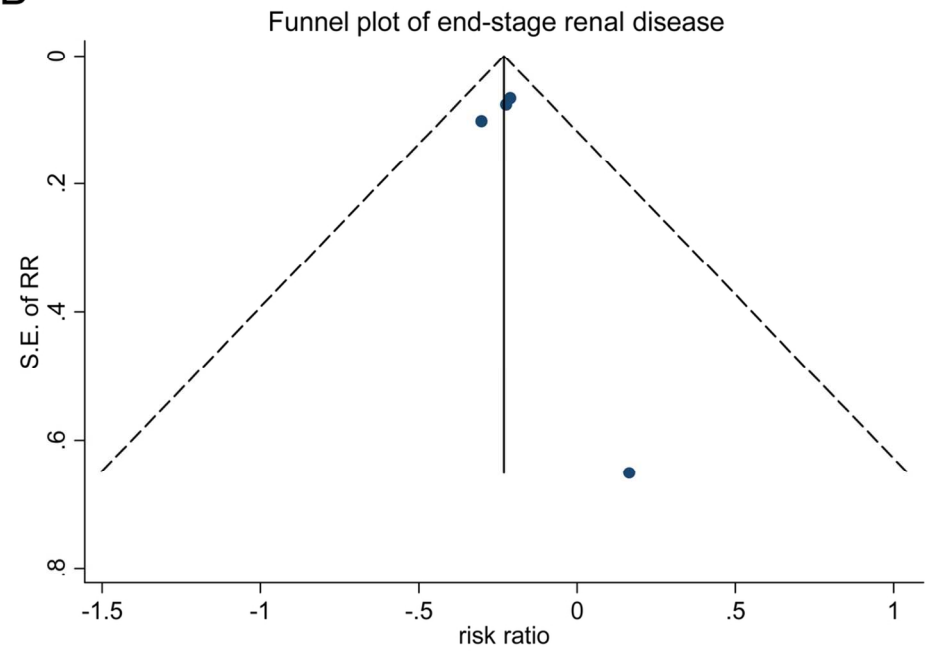

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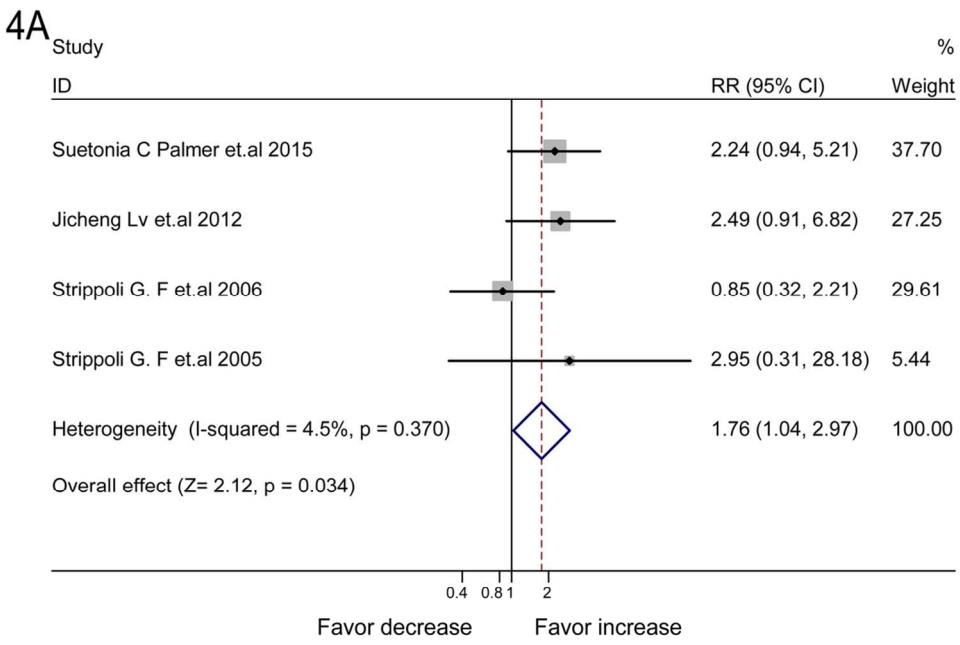

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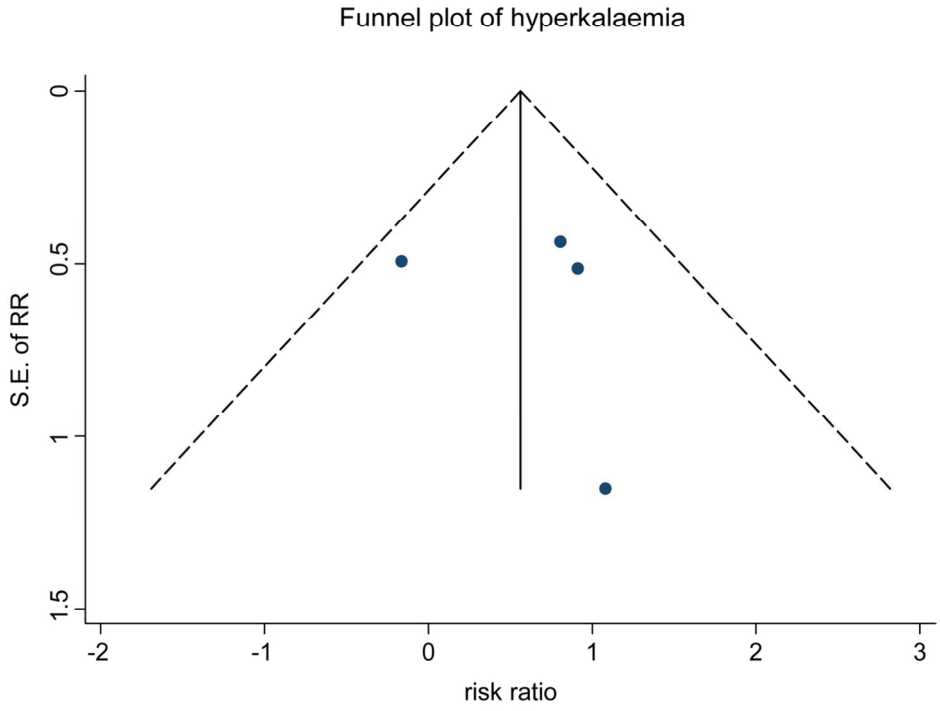

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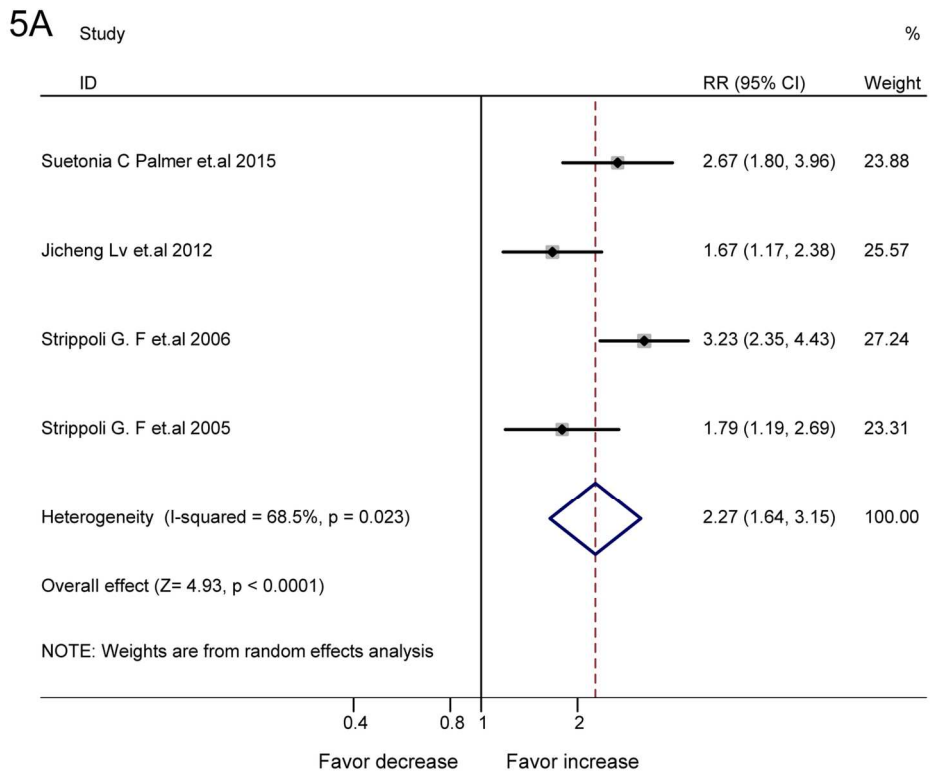

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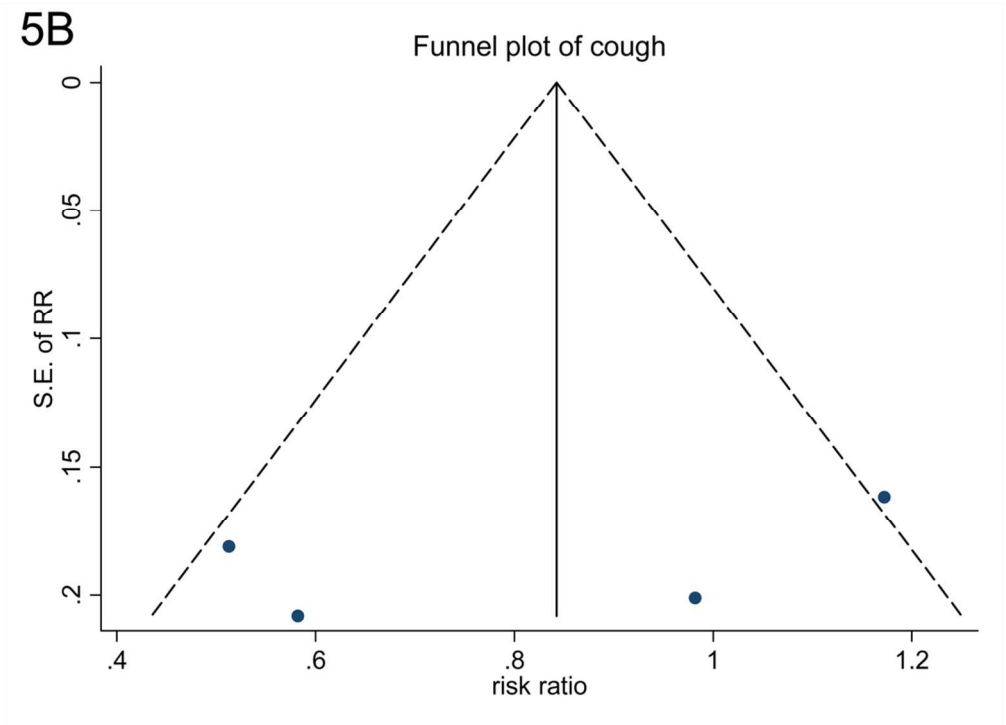

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