

**Supplementary information to:**

**OPTIMIZED THERAPEUTIC POTENTIAL OF SIJUNZI-SIMILAR  
FORMULAE FOR CHRONIC ATROPHIC GASTRITIS VIA  
BAYESIAN NETWORK META-ANALYSIS**

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<https://dx.doi.org/10.17179/excli2024-7618>

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**Supplementary Table 1:** The composition of Chinese herbal formulas

Formulas name	Composition	Ratio	Main active ingredients
<b>Sijunzi Decoction</b>	<i>Panax ginseng</i> C. A. Mey.	1	ginsenoside, volatile oil, polysaccharide
	<i>Poria cocos</i> (Schw.) Wolf	1	polysaccharide
	<i>Glycyrrhiza uralensis</i> Fisch.	1	flavonoid, polysaccharide
	<i>Atractylodes macrocephala</i> Koidz.	1	polysaccharide, lactone
<b>Liujunzi Decoction</b>	<i>Panax ginseng</i> C. A. Mey.	2	ginsenoside, volatile oil, polysaccharide
	<i>Poria cocos</i> (Schw.) Wolf	2	polysaccharide
	<i>Glycyrrhiza uralensis</i> Fisch.	2	flavonoid, polysaccharide
	<i>Atractylodes macrocephala</i> Koidz.	3	polysaccharide, lactone
	<i>Pinellia ternata</i> (Thunb.) Breit.	3	alkaloid, sterol
	<i>Citrus reticulata</i> Blanco	2	volatile oil
<b>Xiangsha Liujunzi Decoction</b>	<i>Panax ginseng</i> C. A. Mey.	1	ginsenoside, volatile oil, polysaccharide
	<i>Poria cocos</i> (Schw.) Wolf	2	polysaccharide
	<i>Glycyrrhiza uralensis</i> Fisch.	1	flavonoid, polysaccharide
	<i>Atractylodes macrocephala</i> Koidz.	2	polysaccharide, lactone
	<i>Pinellia ternata</i> (Thunb.) Breit.	1	alkaloid, sterol
	<i>Citrus reticulata</i> Blanco	1	volatile oil
	<i>Aucklandia lappa</i> Decne.	1	lactone, alkaloid
	<i>Amomum villosum</i> Lour.	1	volatile oil
<b>Shenling Baizhu Powder</b>	<i>Panax ginseng</i> C. A. Mey.	2	ginsenoside, volatile oil, polysaccharide
	<i>Poria cocos</i> (Schw.) Wolf	2	polysaccharide
	<i>Glycyrrhiza uralensis</i> Fisch.	2	flavonoid, polysaccharide
	<i>Atractylodes macrocephala</i> Koidz.	2	polysaccharide, lactone
	<i>Dolichos lablab</i> L.	1	polysaccharide
	<i>Dioscorea opposita</i> Thunb.	2	polysaccharide, saponin
	<i>Nelumbo nucifera</i> Gaertn.	1	alkaloid, flavonoid
	<i>Coix lacryma-jobi</i> L.var.mayuena(Roman.) Stapf	1	polysaccharide
	<i>Amomum villosum</i> Lour.	1	volatile oil
	<i>Platycodon grandiflorus</i> (Jacq.) A. DC.	1	saponin, flavonoid, polysaccharide
<b>Chaishao Liujunzi Decoction</b>	<i>Panax ginseng</i> C. A. Mey.	3	ginsenoside, volatile oil, polysaccharide
	<i>Poria cocos</i> (Schw.) Wolf	2	polysaccharide
	<i>Glycyrrhiza uralensis</i> Fisch.	1	flavonoid, polysaccharide
	<i>Atractylodes macrocephala</i> Koidz.	2	polysaccharide, lactone
	<i>Pinellia ternata</i> (Thunb.) Breit.	2	alkaloid, sterol
	<i>Citrus reticulata</i> Blanco.	2	volatile oil
	<i>Bupleurum chinense</i> DC.	2	saponin, polysaccharide
	<i>Paeonia lactiflora</i> Pall.	3	Paeoniflorin

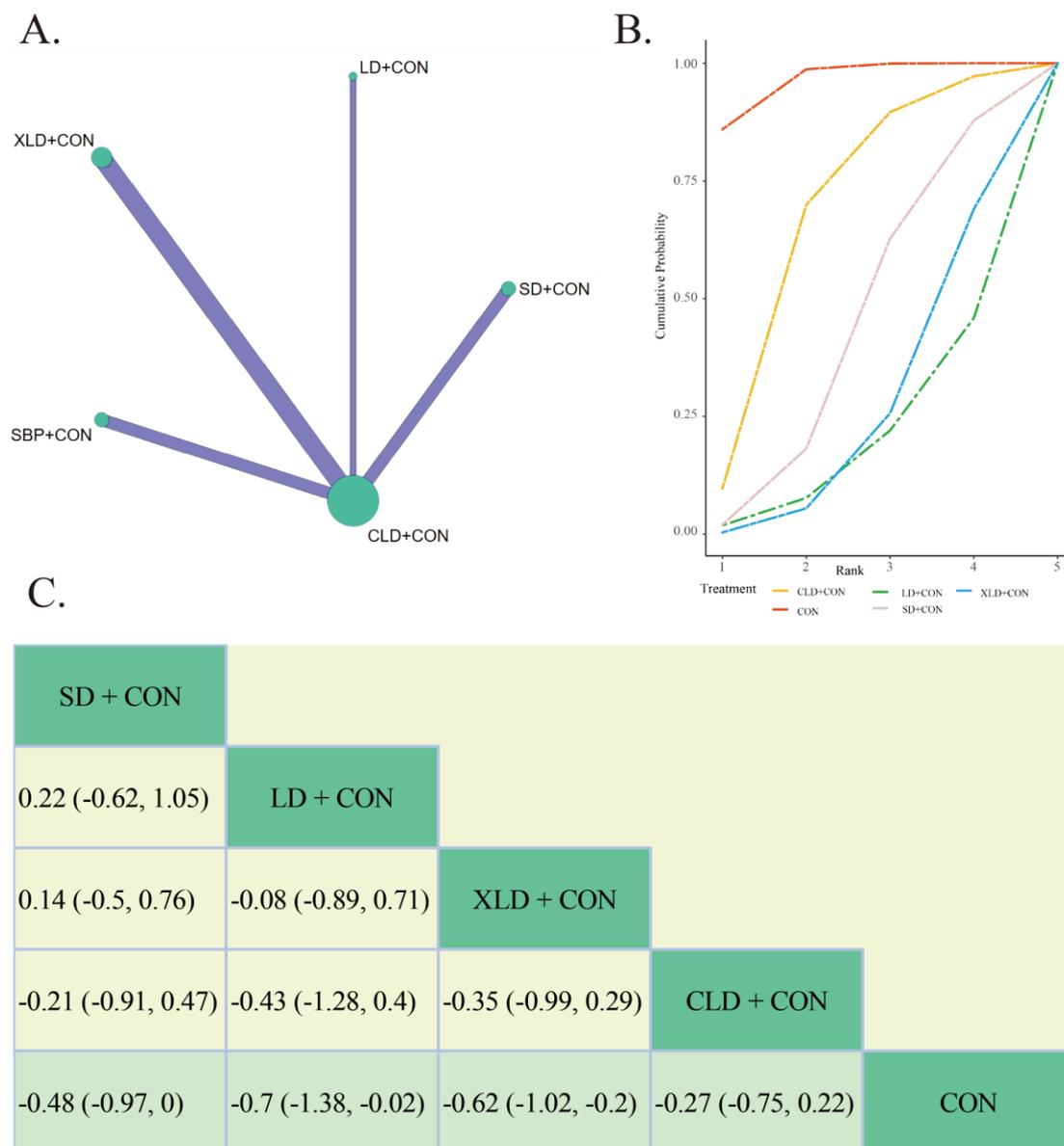
**Supplementary Table 2:** The search strategy for English databases

Database	Number	Search terms
<b>EMBASE</b>	#1	chronic atrophic gastritis':kw AND 'sijunzi decoction chronic atrophic gastritis':kw OR 'liujunzi decoction chronic atrophic gastritis':kw OR 'xiangsha liujun decoction chronic atrophic gastritis':kw OR 'shenling baizhu powder orchronic atrophic gastritis':kw OR 'chaishao liujunzi decoction orchronic atrophic gastritis':kw
	#2	((('sijunzi'/exp OR sijunzi) AND ('decoction'/exp OR decoction) AND chronic AND atrophic AND ('gastritis'/exp OR gastritis))) OR 'liujunzi decoction chronic atrophic gastritis' OR (('liujunzi'/exp OR liujunzi) AND ("decoction'/exp OR decoction) AND chronic AND atrophic AND ('gastritis'/exp OR gastritis))OR 'xiangsha liujun decoction chronic atrophic gastritis' OR (xiangsha AND liujun AND ('decoction'/exp OR decoction) AND chronic AND atrophic AND ('gastritis'/exp OR gastritis)) OR 'shenling baizhu powder orchronic atrophic gastritis' OR (shenling AND ("baizhu'/exp OR baizhu) AND ("powder'/exp OR powder) AND orchronic AND atrophic AND ('gastritis'/exp OR gastritis))OR 'chaishao liujunzi decoction chronic atrophic gastritis' OR (('chaishao'/exp OR liujunzi) AND ("decoction'/exp OR decoction) AND chronic AND atrophic AND ('gastritis'/exp OR gastritis)))AND ('chronic atrophic gastritis':kw AND 'sijunzi decoction chronic atrophic gastritis':kw OR 'liujunzi decoction chronic atrophic gastritis':kw OR 'xiangsha liujun decoction chronic atrophic gastritis':kw OR 'shenling baizhu powder orchronic atrophic gastritis':kw OR 'chaishao liujun decoction chronic atrophic gastritis':kw)
	#3	('chronic atrophic gastritis'/exp OR 'chronic atrophic gastritis') AND ('sijunzi decoction'/exp OR 'sijunzi decoction') OR 'liujunzi decoction'/exp OR 'liujunzi decoction' OR 'xiangsha liujun decoction' OR 'shenling baizhu powder'/exp OR 'shenling baizhu powder' OR 'chaihui liujunzi decoction'
	#4	#1 OR #2 OR #3
<b>PubMed</b>	#1	"Gastritis, Atrophic"[Mesh] OR (Atrophic Gastritides) OR (Atrophic Gastritis) OR (Gastritides, Atrophic)
	#2	(Sijunzi decoction) [Supplementary Concept] OR (SJZD) OR (Sijunzi formula) OR (liujunzi decoction) [Supplementary Concept] OR (xiangsha liujunzi decoction) [Supplementary Concept] OR (shenling baizhu powder) [Supplementary Concept] OR (chaihshaoliujunzi decoction) [Supplementary Concept]
	#3	#1 AND #2
<b>Web of science</b>	#1	(TS=((Gastritis, Atrophic) OR (Atrophic Gastritides) OR (Atrophic Gastritis) OR (Gastritides, Atrophic))) AND TS=(sijunzi decoction OR SJZD OR sijunzi formula OR liujunzi decoction OR xiangsha liujun decoction OR Shenling Baizhu Powder OR Chaishao Liujunzi Decoction)

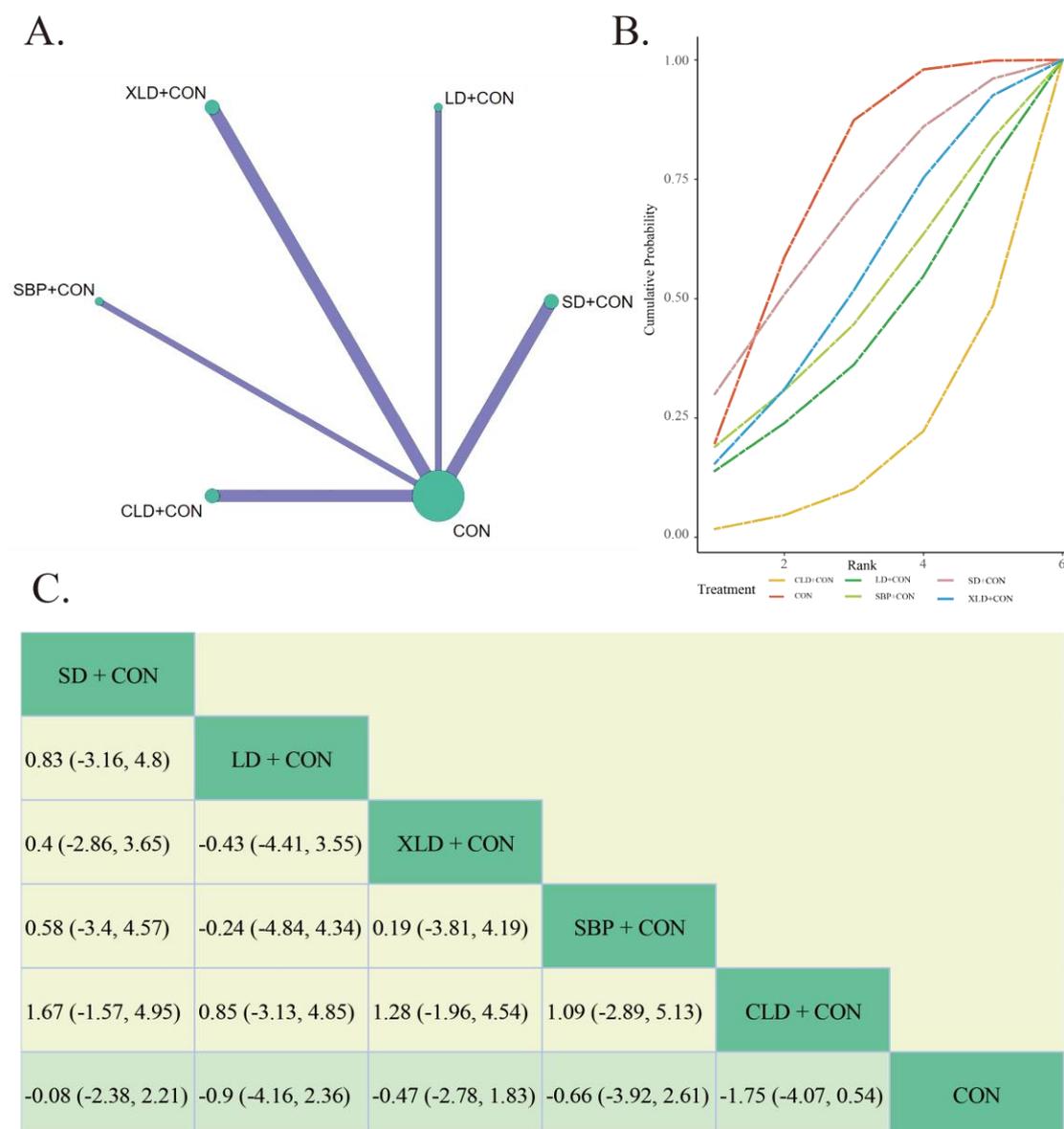
<b>Cochrane Library</b>	#1	MeSH descriptor: [Gastritis, Atrophic] this term only
	#2	(Gastritis, Atrophic or Atrophic Gastritides or Atrophic Gastritis or Gastritides, Atrophic)
	#3	#1 OR #2
	#4	sijunzi decoction or liujunzi decoction or xiangsha liujun decoction or Shenling Baizhu Powder or chaishao liujunzi decoction
	#5	#3 AND #4

**Supplementary Table 3:** List of abbreviations

Abbreviation	Full name
<b>BNMA</b>	Bayesian network meta-analysis
<b>CAG</b>	Chronic atrophic gastritis
<b>CagA</b>	Cytotoxin-associated gene A
<b>Cis</b>	Confidence intervals
<b>CLD</b>	Chaishao Liujunzi Decoction
<b>COX-2</b>	Cyclooxygenase-2
<b>EGFR</b>	Epidermal growth factor receptor
<b>H. pylori</b>	Helicobacter pylori
<b>HOS-1</b>	Heme oxygenase-1
<b>IL</b>	Interleukin
<b>LD</b>	Liujunzi Decoction
<b>NF-<math>\kappa</math>B</b>	Nuclear Factor- kappa B
<b>PRISMA</b>	Systematic Reviews and Meta-Analyses
<b>PSRF</b>	The potential scale reduction factor
<b>ROS</b>	Reactive oxygen species
<b>RR</b>	Relative risk
<b>SBP</b>	Shenling Baizhu Powder
<b>SD</b>	Sijunzi Decoction
<b>SF</b>	Sijunzi-Similar Formulae
<b>SMD</b>	Standard mean difference
<b>SUCRA</b>	The surface under the probability cumulative ranking curve
<b>TGF-<math>\alpha</math></b>	Transforming growth factor- alpha
<b>TNF-<math>\alpha</math></b>	Tumor Necrosis Factor-alpha
<b>VacA</b>	Vacuolating cytotoxin A
<b>XLD</b>	Xiangsha Liujunzi Decoction

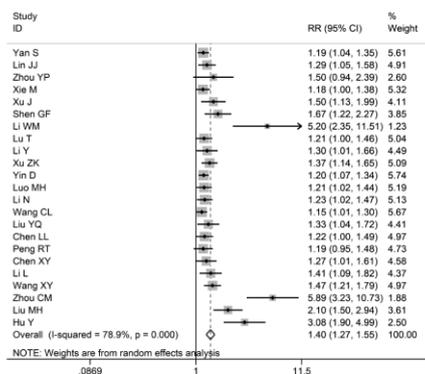


**Supplementary Figure 1: The Bayesian Network Meta analysis of abdominal pain symptom score.** **A:** Network comparisons of abdominal pain symptom score. **B:** The cumulated probability rank of abdominal pain symptom score. **C:** League table of Bayesian network meta-analysis for abdominal pain symptom score. (Notes: SD, Sijunzi Decoction. LD, Liujunzi Decoction. XLD, Xiangsha Liujunzi Decoction. CLD, Chaishao Liujunzi Decoction. CON, Conventional therapy)

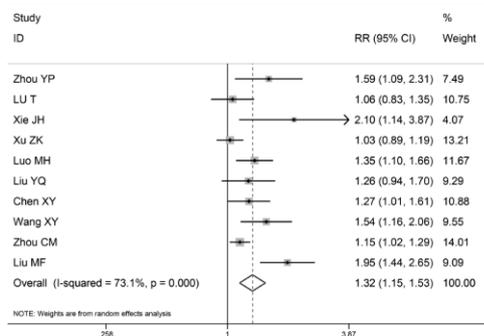


**Supplementary Figure 2: The Bayesian Network Meta analysis of inappetence symptom score. A:** Network comparisons of inappetence symptom score. **B:** The cumulated probability rank of inappetence symptom score. **C:** League table of Bayesian network meta-analysis for inappetence symptom score. (Notes: SD, Sijunzi Decoction. LD, Liujunzi Decoction. XLD, Xiangsha Liujunzi Decoction. SBP, Shenling Baizhu Powder. CLD, Chaishao Liujunzi Decoction. CON, Conventional therapy)

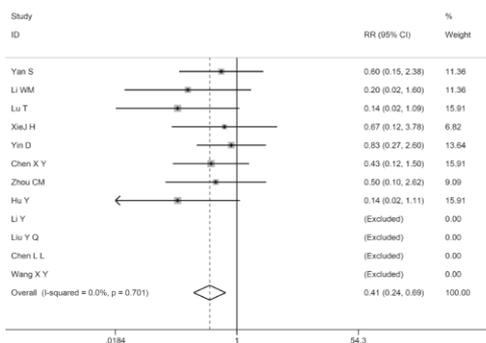
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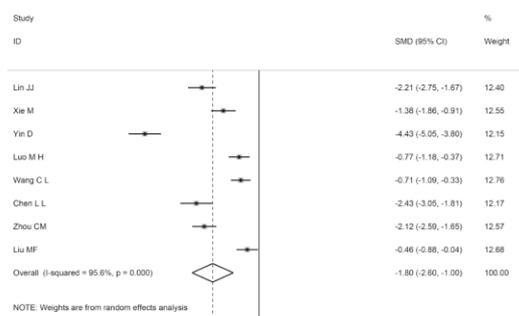
B



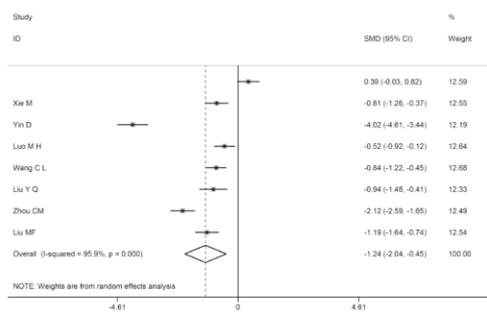
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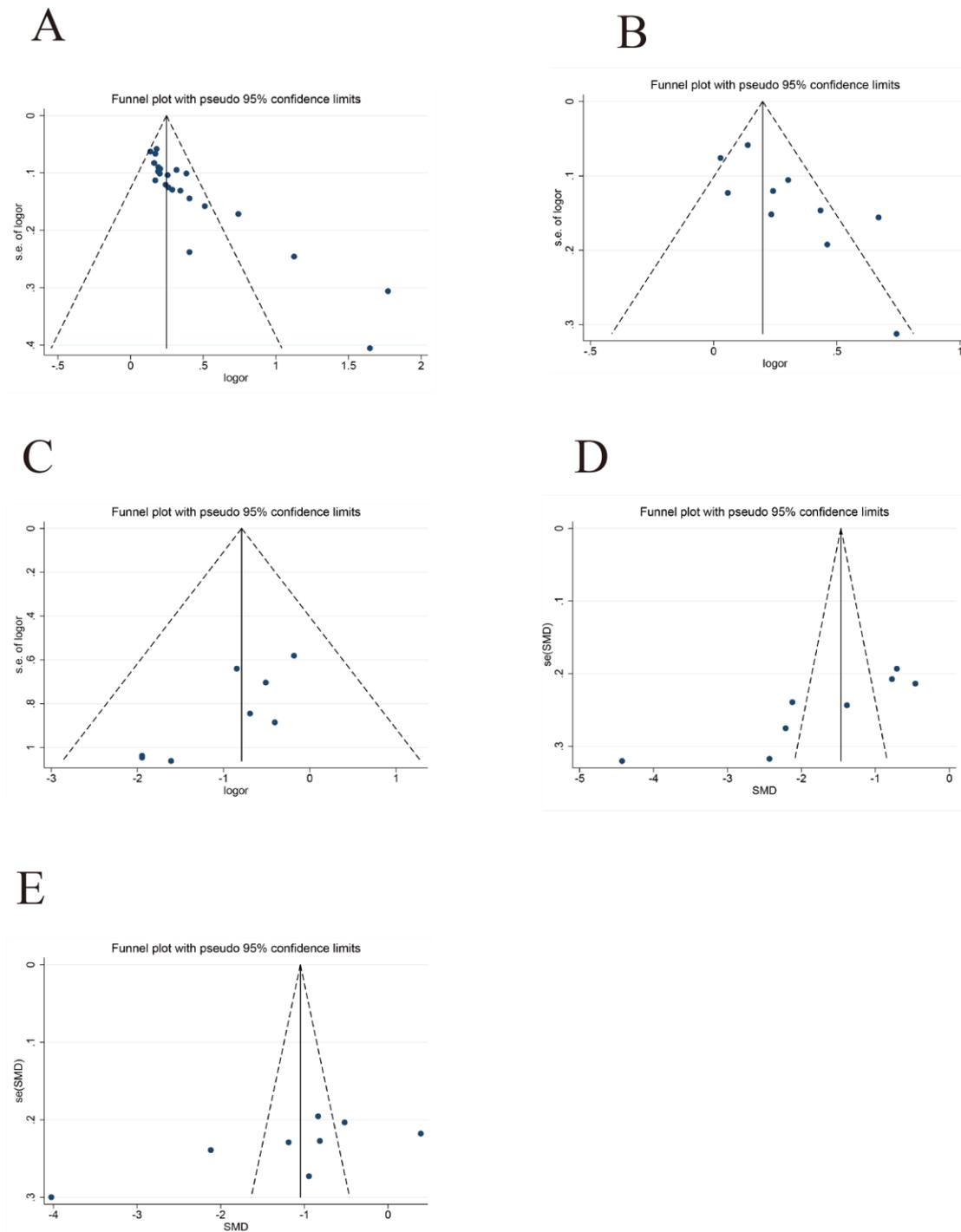
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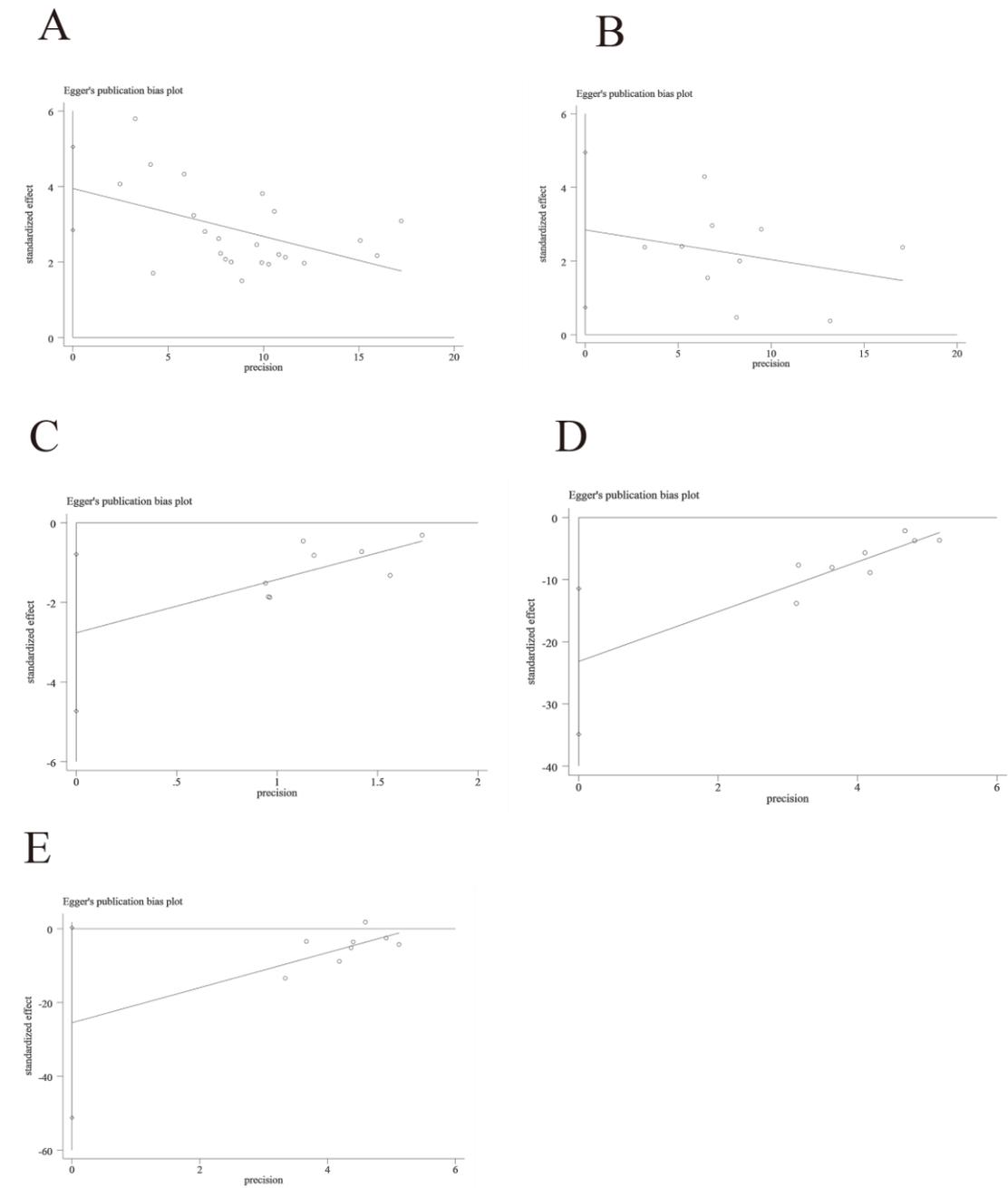
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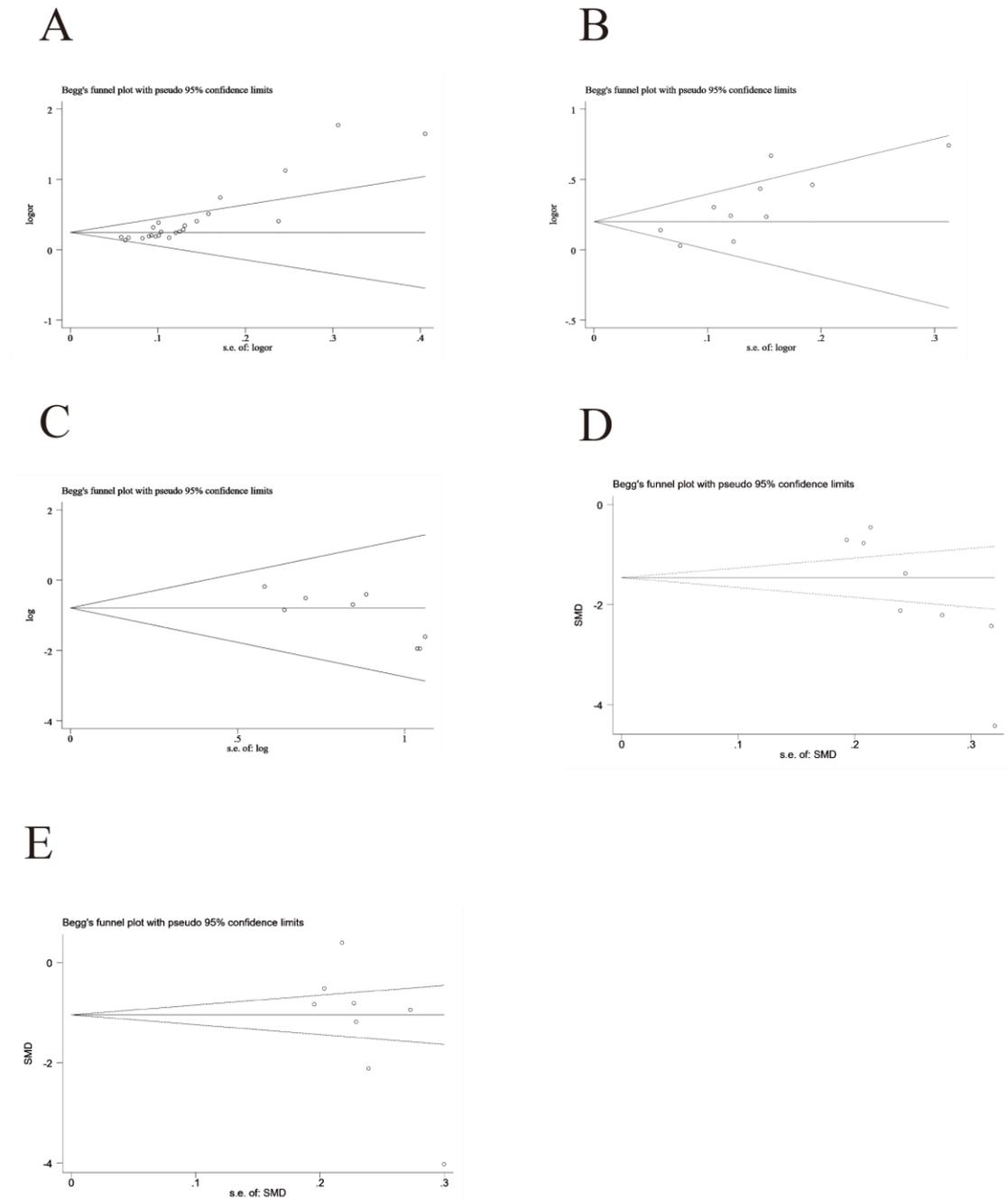
**Supplementary Figure 3: Forest plot (A) Clinical efficacy, (B) *H. pylori* eradication rate, (C) Incidence of adverse effects, (D) The TCM symptom scores of abdominal pain, (E) The TCM symptom scores of inappetence**



**Supplementary Figure 4: Funnel plots: (A) Clinical efficacy, (B) *H. pylori* eradication rate, (C) Incidence of adverse effects, (D) The TCM symptom scores of abdominal pain, (E) The TCM symptom scores of inappetence**

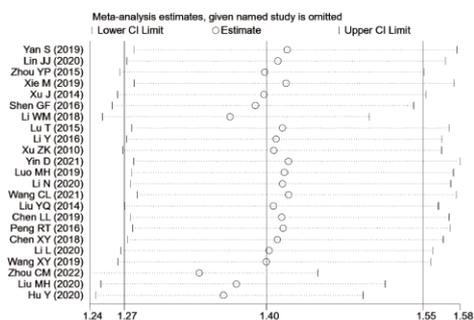


**Supplementary Figure 5: Egger's publication bias plot: (A) Clinical efficacy, (B) *H. pylori* eradication rate, (C) Incidence of adverse effects, (D) The TCM symptom scores of abdominal pain, (E) The TCM symptom scores of inappetence**

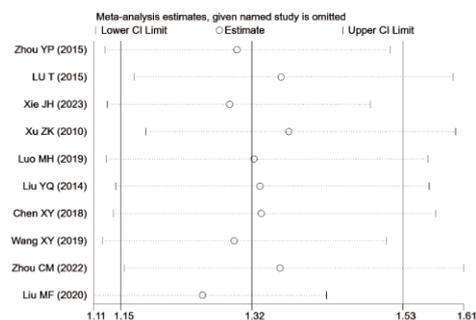


**Supplementary Figure 6: Begg test plot: (A)** Clinical efficacy, **(B)** *H. pylori* eradication rate, **(C)** Incidence of adverse effects, **(D)** The TCM symptom scores of abdominal pain, **(E)** The TCM symptom scores of inappetence

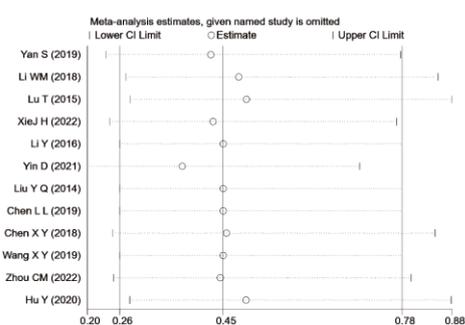
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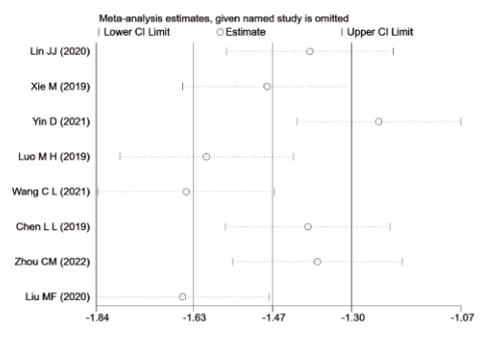
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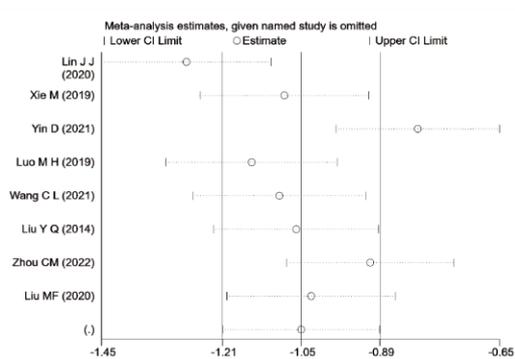
C



D



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**Supplementary Figure 7: Sensitive analysis (A) Clinical efficacy, (B) *H. pylori* eradication rate, (C) Incidence of adverse effects, (D) The TCM symptom scores of abdominal pain, (E) The TCM symptom scores of inappetence**