Association between ApoE polymorphism and type 2 diabetes:

A meta-analysis of 59 studies

Dawei Chen¹, Jikang Shi², Yun Li³, Yu Yang⁴, Hui Yang⁵, Shuping Ren^{6*}

- 1. Department of Radiation Protection, School of Public Health, Jilin University, China;
- 2. Department of Epidemiology and Statistics, School of Public Health, Jilin University, China;
- 3. Department of Ophthalmology, China-Japan Union Hospital, Jilin University, China;
- 4. Function Experiment Center of College of Basic Medicine, Jilin University, China;
- 5. Teaching Center of Preventive Medicine, School of Public Health, Jilin University, China;
- 6. Department of Occupational and Environmental Health, School of Public Health, Jilin University, China;

*Corresponding Author: Shuping Ren

Add: No. 1163 Xinmin Street, Department of Occupational and Environmental Health, School of Public Health, Jilin University, Changchun, 130021, Jilin Province, China;

Tel: +86-431-85619453;

Fax: +86-431-85619438;

Email: rensp@jlu.edu.cn.

Abstract

(1) Aims: Due to the ever increasing incidence of T2DM, it is estimated that only half of the 79 million adults with type 2 diabetes (T2DM) will have adequate access to insulin by 2030 if the current levels of access is not improved. It is urgent to identify the important risk factors for T2DM and develop effective strategies to address the problem of T2DM. Our study aimed to evaluate the association between apolipoprotein E (*ApoE*) genetic polymorphism and type 2 diabetes, and to provide clues for the etiology of T2DM and even molecular marker of targeted therapy for the treatment of T2DM.

(2) Methods: Case-control studies of ApoE polymorphism and T2DM, which were included in PubMed, Web of Science, Medline, WanFang, VIP, and CNKI databases, were selected and evaluated according to criteria of inclusion and exclusion. Eligible data were extracted and pooled, and were analyzed and assessed using R soft-ware (version 3.4.3). Random-effect models were used when heterogeneity existed in between-study, and fixed-effect models were applied otherwise.

(3) Results: A total of 59 studies that consisted of 6,872 cases with T2DM and 8,250 controls were selected. Alleles and genotypes of *ApoE* between cases and controls were compared. For *ApoE* alleles, we observed the contrast of ε 4 versus ε 3 allele yielding a pooled OR of 1.18 (95% *CI:* 1.09-1.28; *P*<0.001). For *ApoE* genotypes, compared with ε 3/ ε 3 genotype, ε 2/ ε 2 genotype showed a possible association with T2DM (OR=1.46; 95% *CI:* 1.11-1.93; *P*=0.007), ε 3/ ε 4 genotype had a 1.11-fold risk of developing T2DM (OR=1.11; 95% *CI:* 1.01-1.22; *P*=0.039), and ε 4/ ε 4 genotype had a 1.71-fold risk of developing T2DM (*OR*=1.71; 95% *CI:* 1.33-2.19; *P*<0.001).

(4) Conclusions: There is an association between *ApoE* polymorphism and T2DM: allele ε 4 and genotypes (ε 2/ ε 2, ε 3/ ε 4, and ε 4/ ε 4) are associated with the increased risk for the development of T2DM, and they may be risk factors for T2DM.

Keywords: apolipoprotein E; meta-analysis; polymorphism; type 2 diabetes

1. Introduction

It is estimated that only half of the 79 million adults with type 2 diabetes will have adequate access to insulin by 2030 if the current levels of access is not improved (BASU *et al.* 2019). Moreover, one of the significant causes of worldwide mortality and morbidity is diabetes (2016), especially type 2 diabetes mellitus, which is also the major cause of substantial global economic burden (BOMMER *et al.* 2017). Therefore, there is an urgent need to identify the important risk factors for T2DM and develop effective strategies to address the problem of T2DM.

It is well accepted that genetic factor, environmental factors, and lifestyle contribute to the development of T2DM. Complex interactions between multiple genes and a range of environmental factors are involved in the onset and progression of type 2 diabetes(SCHEUNER *et al.* 2008). A better understanding of the contribution of genetic factors in the etiology of T2DM will facilitate the development of effective preventive strategies to reduce the ever increasing incidence of T2DM (DAVIES and THIRLAWAY 2013), it will also improve the effectiveness and precision of treatment and prevention strategies (O'RAHILLY *et al.* 2005).

ApoE gene is one of the most studied genes which is responsible for stabilizing and solubilizing circulating lipoproteins in our body (CHAUDHARY *et al.* 2012). *ApoE* is a plasma glycoprotein of 34 kDa with 299-amino acids, and acts as a high affinity ligand for several hepatic lipoprotein receptors such as low-density lipoprotein receptor (LDLR) and LDL-related protein (LRP)(CHAUDHARY *et al.* 2012). *ApoE* is also involved in the process of cellular incorporation of several lipoproteins for transport and digestion (MAHLEY and RALL 2000) and is associated with several other plasma glycoproteins, such as high density lipoprotein (HDL), very low density lipoprotein (VLDL), and chylomicrons (SINGH *et al.* 2006b). In humans, apoE gene is located on the chromosome at position 19q13.2 with SNPs at positions 112 (rs 429358) and 158 (rs 7412), and includes three major alleles: $\epsilon 2$ (T to C substitution at position 158), the most common $\epsilon 3$, and $\epsilon 4$ (C to T substitution at position 112); 3 isoforms: ApoE2 (Cys112, 158Cys), ApoE3 (Cys112, 158Arg), and ApoE4 (Arg112, 158Arg); and 6

3

genotypes having 3 homozygous: $\varepsilon 2/\varepsilon 2$, $\varepsilon 3/\varepsilon 3$, and $\varepsilon 4/\varepsilon 4$, and 3 heterozygous: $\varepsilon 2/\varepsilon 3$, $\varepsilon 2/\varepsilon 4$, and $\varepsilon 3/\varepsilon 4$ (SINGH *et al.* 2006b).

ApoE is involved in many diseases, such as coronary heart disease (CHD))(Song *et al.* 2004), ischemic cerebrovascular disease (ICD)(McCARRON *et al.* 1999), Alzheimer's disease (FARRER *et al.* 1997) and diabetes.

Much of the recent research has studied the association between the *ApoE* gene polymorphism and the risk of T2DM, however, there are inconsistencies between the results of the different studies. The inconsistency may result from the difference of included population, sample size, and genotyping methods. Moreover, 18 new papers(CHEN 2006; TANG *et al.* 2007; ERDOGAN *et al.* 2009; AL-MAJED *et al.* 2011; CHAUDHARY *et al.* 2012; MUSTAPIC *et al.* 2012; GE *et al.* 2013; RONG *et al.* 2013; SUN *et al.* 2013a; XIONG *et al.* 2013; ALHARBI *et al.* 2014; LIU 2014; WANG *et al.* 2014; ATTA *et al.* 2016; LIU *et al.* 2016; LUO *et al.* 2016; MEHMET *et al.* 2016; LIANG *et al.* 2017) have been published since the publication of latest meta-analysis of the association between *ApoE* gene polymorphism and T2DM in 2014(YIN *et al.* 2014). Therefore, we enrolled these new published articles, and performed a further meta-analysis to investigate whether *ApoE* polymorphism is associated with the increased risk of T2DM.

2. Materials and Methods

2.1. Search strategy

We performed this meta-analysis by extensive literature search in PubMed, Web of Science, Medline, WanFang, VIP, and CNKI databases (last search on November 19, 2018). The terms used for searching were ("*ApoE*" OR "Apolipoprotein E") AND ("polymorphism, Genetic" OR "variant" OR "mutation") AND ("type 2 diabetes mellitus" OR "type 2 diabetes" OR "T2DM" OR "non-insulin dependent diabetes" OR "NIDDM"). The equivalent Chinese terms were used in the Chinese databases. In addition, we retrieved related articles that had not been identified in the initial search to replenish literatures.

2.2. Inclusion/exclusion criteria

Studies included in this meta-analysis were based on the following criteria: (1) case– control studies; (2) assessing the association between *ApoE* polymorphism and type 2 diabetes. The exclusion criteria met the follows: (1) duplicate articles; (2) no healthy controls; (3) lack of sufficient information on genotype or allele frequencies.

2.3. Data extraction

We extracted the main characteristics of each eligible study, including first author's last name, date of publication, region, population's ethnicity, genotyping method, number of cases and controls, and counts of the *ApoE* genotype or allele. We collected and calculated Hardy–Weinberg equilibrium (HWE) among the controls.

2.4. Quality assessment

The Newcastle-Ottawa scale (NOS) was used to evaluate quality of each article through a "star" rating system consisting of selection, comparability, and exposure. We allocated a score of 1 point for each condition a study met, and no point (0 score) if the condition or requirement was lacking. We calculated the total Quality Score of each study. Two authors (Jikang Shi and Shuping Ren) assessed the quality of included studies independently, When inconformity existed between the two authors, the results were requested to discuss with the third investigator (Dawei Chen). To avoid selection bias, studies with poor quality score were not excluded.

2.5. Statistical analysis

Allele and genotype frequencies of *ApoE* were calculated for each study to evaluate the HWE using Goodness of fit Chi-square test among control groups, and P<0.05 was considered as a significant deviation from HWE. The strength of association between

ApoE polymorphisms and type 2 diabetes susceptibility was assessed using odds ratios (OR) and 95% confidence intervals (95% CI) because outcome variable was binary. Heterogeneity was evaluated by the Chi-square test based Q-statistic and quantified by I^2 -statistic (HIGGINS et al. 2003). Random-effect models (DerSimonian and Laird methods) were used to calculate OR and 95% CI when P value of Q test was more than 0.10 or I^2 value was more than 50%; otherwise, fixed-effect models (Mantel and Haenszel methods) were applied ($I^2 \ge 50\%$ considered heterogeneity existed in betweenstudy in this meta-analysis). Subgroup analyses stratified by ethnicity, quality score and Hardy–Weinberg equilibrium were performed to identify main sources of heterogeneity and to observe the association between ApoE polymorphisms and type 2 diabetes in different groups. Publication bias was assessed using funnel plots, and quantified by the Begg's and Egger's tests (P < 0.05 considered statistically significant publication bias) (BEGG and MAZUMDAR 1994). Sensitivity analysis was performed to examine stability of results by omitting each study in each turn. All data management and statistical analyses were used R soft-ware (version 3.4.3), P-value < 0.05 was considered statistically significant.

3. Results

3.1. Study Characteristics

Our meta-analysis initially collected 791 published articles, including 782 papers identified using our search strategy and 9 papers identified through the references. After abstracts and full texts were scanned according to the inclusion and exclusion criteria, 59 eligible articles with 6,872 cases and 8,250 controls were finally included in this paper. The protocol of the process for literature identification and selection is listed in Figure 1, and the baseline characteristics of the included studies are summarized in Table 1.

3.2. Association between alleles of ApoE and type 2 diabetes

There was significant heterogeneity in the comparison of *ApoE* $\varepsilon 2$ with $\varepsilon 3$ allele (I^2 =62%), and the pooled *OR* was 1.16 (95% *CI*: 0.98-1.37; *P*=0.079) when *ApoE* $\varepsilon 2$ was compared with $\varepsilon 3$ using the random-effects model (Figure 2); however, there was

not heterogeneity in the comparison of *ApoE* ε 4 with ε 3 allele (I^2 =36%), and the pooled *OR* was 1.18 (95% *CI*: 1.09-1.28; *P*<0.001) when *ApoE* ε 4 was compared with ε 3 using the fixed-effects model (Figure 3), suggesting that *ApoE* ε 4 allele may be a risk factor for type 2 diabetes.

3.3. Association between genotypes of *ApoE* and type 2 diabetes

There were five genotypes ($\varepsilon_2/\varepsilon_2$, $\varepsilon_2/\varepsilon_3$, $\varepsilon_2/\varepsilon_4$, $\varepsilon_3/\varepsilon_4$, and $\varepsilon_4/\varepsilon_4$) were compared with $\varepsilon 3/\varepsilon 3$ genotype. No significant heterogeneity was found when the $\varepsilon 2/\varepsilon 2$ genotype was compared with $\varepsilon 3/\varepsilon 3$ genotype ($I^2=0\%$), and the yielded OR of $\varepsilon 2/\varepsilon 2$ genotype versus $\varepsilon_3/\varepsilon_3$ genotype using a fixed-effects model was 1.46 (95% CI: 1.11-1.93; P=0.007) (Figure 4), suggesting that the $\varepsilon 2/\varepsilon^2$ genotype may have a harmful effect on type 2 diabetes. However, when $\varepsilon_2/\varepsilon_3$ genotype was compared with $\varepsilon_3/\varepsilon_3$ genotype, there was significant heterogeneity ($I^2=55\%$), and the yielded OR of $\varepsilon 2/\varepsilon 3$ genotype versus $\varepsilon 3/\varepsilon 3$ genotype using a random-effects model was 1.09 (95% CI: 0.90-1.32; P=0.397) (Figure 5). Compared with $\varepsilon 3/\varepsilon 3$ genotype, there were no significant heterogeneity between $\varepsilon^{2/\epsilon^{4}}$, $\varepsilon^{3/\epsilon^{4}}$, and $\varepsilon^{4/\epsilon^{4}}$ genotype, respectively ($I^{2}=0\%$, $I^{2}=39\%$, and $I^{2}=0\%$). The yielded OR of $\varepsilon 2/\varepsilon 4$ genotype versus $\varepsilon 3/\varepsilon 3$ genotype using a fixed-effects model was 1.15 (95%) CI: 0.90-1.46; P=0.276) (Figure 6). The yielded OR of $\varepsilon 3/\varepsilon 4$ genotype versus $\varepsilon 3/\varepsilon 3$ genotype using a fixed-effects model was 1.11 (95% CI: 1.01-1.22; P=0.039) (Figure 7). For the comparition of $\varepsilon 4/\varepsilon 4$ genotype with $\varepsilon 3/\varepsilon 3$ genotype, the yielded *OR* showed a 1.71-fold risk of type 2 diabetes (*OR*=1.71; 95% *CI*: 1.33-2.19; *P*<0.001) using the fixed-effects model (Figure 8).

3.4. Subgroup analysis

We conducted subgroup analysis stratified by ethnicity, quality score and Hardy– Weinberg equilibrium in order to identify main sources of heterogeneity. There were significant heterogeneity in the comparison of *ApoE* ε 2 with ε 3 allele (l^2 =62%) and the comparison of ε 2/ ε 3 genotype with ε 3/ ε 3 genotype (l^2 =55%) in our paper; however, we did not investigate sources of heterogeneity and there was no significant association between *ApoE* polymorphisms and type 2 diabetes in different subgroups (Supplementary Figure S1-S3).

3.5. Publication bias

Publication bias was assessed by funnel plots and quantified by Begg's and Egger's tests. All the funnel plots for *ApoE* allele and *ApoE* genotypes seemed symmetrical (Supplementary Figure S4-S5), and the results of Begg's and Egger's tests showed that there was no publication bias for the association between *ApoE* allele and type 2 diabetes and for the association between the *ApoE* genotypes and type 2 diabetes (all P>0.05).

3.6. Sensitivity analysis

Our results of sensitivity analysis showed that none of individual study influenced on the corresponding pooled *ORs* and 95% *CIs* in the comparison of *ApoE* ε 4 with ε 3 allele or in the comparison of *ApoE* ε 2/ ε 3, ε 2/ ε 4, and ε 4/ ε 4 with genotype ε 3/ ε 3 genotype (Figure 10, Figure 12, Figure 13, and Figure 15), suggesting that these results were relatively stable and credible. However, there were slight effects of individual study on the corresponding pooled *ORs* and 95% *CIs* in the comparison of *ApoE* ε 2 with ε 3 allele or in the comparison of *ApoE* ε 2/ ε 2 and ε 3/ ε 4 with genotype ε 3/ ε 3 genotype (Figure 9, Figure 11, and Figure 14).

Table 1Main characteristics of the included studies

Study	Year	Region	Ethnicity	Genotyping method	Sample size	Quality score	HWE	ε2/ε2(n)	$\epsilon 2/\epsilon 2(n) + \epsilon 2/\epsilon 3(n)$ $\epsilon 2/\epsilon 4(n) + \epsilon 3/\epsilon 3(n)$		ε3/ε4(n)+ε4/ε4(n)		
					(case/control)		Y/N(P)	case	control	case	control	case	control
Singh(Sɪмgн <i>et al.</i> 2006а)	2006	India	Asian	PCR-RELP	90/97	9	Y(0.184)	1+4	1+7	2+78	0+74	5+0	13+2
Al-Majed(Al-Majed <i>et</i> al. 2011)	2011	Kuwait	Other	PCR-RELP	105/62	6	N(0.006)	7+2	2+3	2+73	2+46	6+15	9+1
Chaudhary(Chaudhary et al. 2012)	2012	Bangkok	Other	PCR-RELP	155/149	8	Y(0.121)	1+2	2+12	1+117	0+113	30+4	21+1
Errera(Errera <i>et al.</i> 2006)	2006	Brazil	Other	PCR-RELP	95/107	7	Y(0.584)	0+13	0+7	2+68	0+77	12+0	23+0
Alharbi(Alharbi <i>et al.</i> 2014)	2014	Riyadh	Other	TaqMan	438/460	7	N(<0.001)	35+26	27+18	13+290	11+334	35+39	60+10
namdar(Inamdar <i>et</i> al. 2000)	2000	India	Asian	Flat gel isoelectric focusing	60/40	8	Y(0.054)	2+8	1+9	3+17	2+10	16+14	8+10
Kwon(Kwon <i>et al.</i> 2007)	2007	Korea	Asian	PCR-RELP	94/88	7	Y(0.924)	0+13	0+5	3+63	0+70	14+1	12+1
atta(A⊤⊤A <i>et al.</i> 2016)	2016	Egypt	Other	PCR-RELP	45/45	5	Y(0.098)	0+12	0+3	12+12	3+30	9+0	9+0
/auhkonen(Vauнкonen et al. 1997)	1997	Finland	Caucasian	PCR-RELP	86/125	8	Y(0.963)	0+7	0+9	3+48	2+76	20+8	33+5
Erdogan(Erdogan <i>et</i> al. 2009)	2009	Turkey	Caucasian	PCR-RELP	56/35	7	N(<0.001)	0+4	0+0	0+40	0+28	12+0	7+0
Eto(ETO <i>et al.</i> 1986)	1986	Japan	Asian	Flat gel isoelectric focusing	105/111	8	Y(0.339)	0+9	1+10	0+73	1+80	21+2	16+3
Guan(GUAN <i>et al.</i> 2009)	2009	Hong Kong	Asian	PCR-LDR	213/111	7	Y(0.499)	8+32	1+32	7+141	1+88	24+1	9+1
Leiva(Leiva <i>et al.</i> 2005)	2005	Chile	Other	PCR-RELP	193/139	7	Y(0.293)	0+12	0+10	4+133	3+87	43+1	39+0
.iu(Lɪʊ <i>et al.</i> 2003)	2003	Shanghai	Asian	PCR-RELP	80/81	7	Y(0.217)	0+11	0+4	1+56	2+64	12+0	11+0
Леhmet(Менмет <i>et al.</i> 2016)	2015	Turkey	Caucasian	PCR-RELP	100/50	8	N(0.039)	0+6	0+22	0+81	0+19	13+0	9+0
Kie(XIE <i>et al.</i> 2011)	2011	Hainan	Asian	PCR-RELP	60/20	7	Y(0.936)	0+13	1+3	4+8	2+8	19+16	5+1
Mustapic(Mustapic <i>et</i> al. 2012)	2012	Croatia	Caucasian	TaqMan	196/456	6	Y(0.331)	0+35	1+48	2+127	2+328	30+2	76+1
Santos(Santos <i>et al.</i> 2002)	2002	Mexico	Other	PCR-RELP	36/22	8	Y(0.423)	0+0	1+2	0+32	1+10	3+1	8+0
Kamboh(Камвон <i>et al.</i> 1995)	1995	USA	Caucasian	IEF-immunoblottin and PCR	116/659	6	Y(0.992)	0+23	6+88	5+62	19+382	26+0	150+14
Ng(Ng <i>et al.</i> 2006)	2016	Hong Kong	Asian	Other	386/200	6	Y(0.168)	4+53	1+32	5+282	6+142	39+3	19+0
to(Ето <i>et al.</i> 1995)	1995	Japan	Asian	Flat gel isoelectric focusing	281/576	8	Y(0.609)	1+25	2+35	1+192	4+414	55+7	111+10

Morbois Trabut(Morbois- Trabut <i>et al.</i> 2006)	2006	France	Caucasian	PCR-RELP	210/481	7	Y(0.773)	2+31	5+71	1+143
Powell(Powell <i>et al.</i> 2003)	2003	UK	Caucasian	PCR-RELP	187/102	7	Y(0.094)	3+22	2+7	3+89
Guangda(GUANGDA <i>et</i> <i>al.</i> 1999)	1999	Wuhan	Asian	PCR-RELP	89/72	7	Y(0.122)	1+13	1+7	1+66
Zhang(ZHANG <i>et al.</i> 2000)	2000	Zhejiang	Asian	PCR-RELP	63/71	8	N(0.009)	0+7	0+5	0+50
Zhang(ZHANG <i>et al.</i> 2003)	2003	Sichuan	Asian	PCR-RELP	74/191	8	Y(0.878)	0+5	1+23	1+55
Sun(Sun <i>et al.</i> 2013b)	2013	Beijing	Asian	PCR-RELP	243/78	7	Y(0.414)	6+36	2+12	0+180
Hua(Hua <i>et al.</i> 2006)	2006	Jiangsu	Asian	PCR-RELP	50/60	8	Y(0.190)	2+4	0+7	4+68
Guo(Guo <i>et al.</i> 2003)	2003	Tianjin	Asian	PCR-RELP	40/52	7	Y(0.739)	0+4	0+5	2+23
Liang(LIANG <i>et al.</i> 2017)	2017	guangdong	Asian	PCR-RELP	44/374	6	Y(0.816)	1+3	5+57	1+31
Shen(SнEN <i>et al.</i> 2002а)	2002	Shanghai	Asian	PCR-RELP	106/110	7	Y(0.577)	1+7	1+12	2+84
Zheng(ZHENG <i>et al.</i> 1998)	1998	Shanghai	Asian	PCR-RELP	112/60	8	Y(0.801)	2+16	1+8	1+81
Hua(Hua <i>et al.</i> 2004)	2004	Suzhou	Asian	PCR-RELP	38/60	7	Y(0.434)	1+7	0+4	2+24
Liu(Lıu 2014)	2014	Kunming	Asian	PCR-RELP	215/298	7	N(<0.001)	10+0	2+0	0+174
Xiang(Guangda <i>et al.</i> 1999)	1995	Kunming	Asian	PCR-RELP	125/50	7	Y(0.715)	2+16	0+4	0+78
Chen(CHEN 2006)	2006	Fujian	Asian	PCR-RELP	97/105	7	Y(0.906)	2+15	1+18	1+70
Xiang(Guangda Xiang 1999)	1999	Wuhan	Asian	PCR-ASO	130/50	8	Y(0.715)	3+14	0+4	1+85
Shen(SнEN <i>et al.</i> 2002b)	2002	Fujian	Asian	PCR-RELP	35/50	6	Y(0.112)	3+11	0+6	2+4
Xiong(XIONG <i>et al.</i> 2013)	2013	Hannan	Asian	PCR-RELP	121/112	8	Y(0.991)	0+15	1+13	1+72
Zhou(Zно∪ <i>et al.</i> 2005)	2005	Heilongjiang	Asian	PCR-RELP	67/68	7	Y(0.263)	0+13	2+9	1+47
Xiang(Guangda Xiang 2005)	2005	Wuhan	Asian	PCR-ASO	101/95	7	Y(0.438)	1+10	1+10	1+65
Long(Jianqiu Long 1999)	1999	Shanghai	Asian	PCR-RELP	67/135	7	Y(0.124)	0+15	0+18	3+36
Liang(SHU LIANG 2005)	2005	Jiangsu	Asian	PCR-RELP	145/90	8	Y(0.592)	0+17	0+12	6+102
Gu(Liqun Gu 2004)	2004	jiangsu	Asian	PCR-RELP	63/90	8	Y(0.592)	0+9	0+12	3+43

14+294	33+0	87+10
1+57	27+3	21+0
2+53	7+1	7+2
3+56	6+0	6+0
1+134	12+1	31+1
1+55	21+0	6+1
2+75	20+2	13+3
1+39	9+2	6+1
6+267	7+1	38+1
4+74	11+1	18+1
0+45	11+1	6+0
1+45	4+0	8+2
1+45 0+272	4+0 31+0	8+2 23+1
0+272	31+0	23+1
0+272 1+38	31+0 26+3	23+1 6+1
0+272 1+38 2+72	31+0 26+3 8+1	23+1 6+1 10+1
0+272 1+38 2+72 1+38	31+0 26+3 8+1 24+3	23+1 6+1 10+1 6+1
0+272 1+38 2+72 1+38 4+31	31+0 26+3 8+1 24+3 14+0	23+1 6+1 10+1 6+1 9+0
0+272 1+38 2+72 1+38 4+31 2+72	31+0 26+3 8+1 24+3 14+0 31+2	23+1 6+1 10+1 6+1 9+0 22+2
0+272 1+38 2+72 1+38 4+31 2+72 0+46	31+0 26+3 8+1 24+3 14+0 31+2 6+0	23+1 6+1 10+1 6+1 9+0 22+2 11+0
0+272 1+38 2+72 1+38 4+31 2+72 0+46 1+65	31+0 26+3 8+1 24+3 14+0 31+2 6+0 20+4	23+1 6+1 10+1 6+1 9+0 22+2 11+0 15+3

Yang(Xiangjiu Yang 1995)	1995	Hubei	Asian	PCR-RELP	125/50	7	N(0.028)	2+16	1+3	0+78
Rong(Rong <i>et al.</i> 2013)	2013	Guangdong	Asian	PCR-RELP	18/29	7	Y(0.953)	0+4	0+8	0+18
Liu(Lɪʊ <i>et al.</i> 2016)	2016	Yunnan	Asian	PCR-RELP	300/300	8	N(<0.001)	14+0	2+0	0+243
Tang(Tang <i>et al.</i> 2007)	2007	Zhenan	Asian	PCR-RELP	41/60	6	Y(0.80)	0+1	0+3	2+28
Qiu(Qī∪ 2008)	2008	Zhejiang	Asian	PCR-RELP	129/110	8	Y(0.481)	0+14	1+18	3+95
Guo(Jinjing Guo 2007)	2007	Gansu	Asian	ARMS-PCR	40/40	6	Y(0.618)	0+1	1+4	3+29
Xiong(Yu Xiong 2008)	2008	Wuhan	Asian	MultiARMS PCR	316/512	6	Y(0.744)	2+18	3+48	6+230
Ge(GE et al. 2013)	2013	Inner Mongolia	Asian	PCR-RELP	200/210	7	Y(0.544)	3+35	8+40	2+86
Xiang(Qian Xiang 2010)	2010	Yunnan	Asian	PCR-RELP	41/102	7	Y(0.473)	0+5	0+13	1+28
Luo(Luo <i>et al.</i> 2016)	2016	Guangdong	Asian	PCR-RELP	35/50	6	N(0.005)	0+3	0+2	1+28
Zhang(Guangwu Zhang 2007)	2007	Zhejiang	Asian	PCR-RELP	38/49	6	N(0.015)	0+2	0+1	0+32
Wang(Wang <i>et al.</i> 2014)	2014	Guangdong	Asian	PCR-RELP	57/55	8	N(0.027)	0+4	2+7	2+33
Zhang(LI ZHANG 1999)	2002	Anhui	Asian	PCR-RELP	56/76	5	Y(0.631)	0+3	1+7	1+40
Xiong(BIN XIONG 2005)	2005	Gansu	Asian	PCR-RELP	32/30	7	Y(0.608)	1+5	0+4	1+22
Dai(QINGFU DAI 2000)	2000	Fujian	Asian	PCR-RELP	32/90	8	Y(0.253)	0+5	0+14	0+23

1+38	26+3	5+2
0+29	2+0	1+0
0+274	43+0	23+1
1+43	10+0	13+0
2+76	14+3	11+2
1+27	7+1	7+0
9+359	47+13	87+6
8+103	73+1	47+4
0+70	7+0	19+0
3+38	2+1	7+0
2+39	3+1	7+0
4+28	13+5	8+6
2+55	11+1	11+1
1+23	2+1	2+0
1+64	3+1	9+2

4. Discussion

In this meta-analysis, we included 59 literatures with 6,872 cases and 8,250 controls to explore the association between the *ApoE* gene polymorphism and type 2 diabetes mellitus. The major findings of our study are that allele $\varepsilon 4$ and genotypes ($\varepsilon 2/\varepsilon 2$, $\varepsilon 3/\varepsilon 4$, and $\varepsilon 4/\varepsilon 4$) are associated with the increased risk for the development of T2DM, however, allele $\varepsilon 2$ and genotypes ($\varepsilon 2/\varepsilon 3$ and $\varepsilon 2/\varepsilon 4$) are not associated with T2DM.

The strengths of the present study are that, 1) we included all the published literatures on the association between ApoE gene polymorphism and T2DM regardless of regions or ethnicities; 2) we had a large sample size. There are 18 new published papers discussing the association between ApoE gene polymorphism and T2DM since the last meta-analysis published in 2014, all of them are included in our present meta-analysis, which will provide more convincing evidence to the association of ApoE gene polymorphism with T2DM; 3) the results of our sensitivity analysis demonstrate that the conclusion of the present study is very stable; 4) the results of publication bias analysis reveal that the conclusion of our study is absent of publication bias. However, our study also has several weaknesses, 1) presence of heterogenicity in our study. We did the subgroup analysis on HWE, genotyping methods and ethnicities, but we did not trace the source of heterogenicity; 2) since the present study is a case-control study, the findings of our study cannot provide the causal relationship between ApoE gene polymorphism with T2DM.

The findings of our meta-analysis are in accordance with the previous studies(ANTHOPOULOS *et al.* 2010; QIU XU 2010; AIMEI LONG 2013; YIN *et al.* 2014), showing that both *ApoE* ϵ 4 allele and the genotypes (ϵ 3/ ϵ 4 and ϵ 4/ ϵ 4) were associated with increased risk of T2DM. Subjects carrying the ϵ 4 alleles had higher plasma total cholesterol levels compared to subjects carrying the ϵ 3/ ϵ 3 genotype, and HDL cholesterol was significantly lower in the ϵ 3/ ϵ 4 than in the ϵ 3/ ϵ 3 individuals(DALLONGEVILLE *et al.* 1992); individuals carrying the ϵ 2/ ϵ 2 genotype had about 31% lower mean LDL than those with the ϵ 4/ ϵ 4 genotype (BENNET *et al.* 2007). Insulin resistance is known to be strongly associated with metabolic dyslipidemia and the correlation of lipid profiles with diabetic phenotypes is significant. Therefore, *ApoE* ϵ 4 allele and the genotypes (ϵ 3/ ϵ 4 and ϵ 4/ ϵ 4) were associated with an increased risk of T2DM through affecting the lipid metabolism.

We found the genotype $\epsilon 2/\epsilon 2$ was associated with increased risk of T2DM, but not allele $\epsilon 2$ or genotype $\varepsilon 2/\varepsilon 3$; which are not in agreement with the results of previous meta-analyses (YIN *et al.* 2014). The results from Yan et al' showed that ε^2 and genotype $\varepsilon^2/\varepsilon^3$ were associated with increased risk of T2DM, genotype $\varepsilon 2/\varepsilon 2$ was not associated with increased risk of T2DM. The inconsistency may be caused by the different subjects included. Yan et al' research included only Chinese Han. Furthermore, we did not reveal the difference in the association of ApoE gene polymorphism with T2DM between ethnicities through subgroup analysis. In addition, our findings are consistent with those of Anthopoulos et al' study (ANTHOPOULOS et al. 2010) which reveals that the ORs for the other ε_2 -carriers genotypes ($\varepsilon_2/\varepsilon_2$, $\varepsilon_2/\varepsilon_3$, and $\varepsilon_2/\varepsilon_4$) compared to $\varepsilon 3/\varepsilon 3$ were greater than 1.00. The slight difference between the present study and Anthopoulos et al' is that the OR of $\varepsilon 2/\varepsilon 2$ in our study reaches statistical significance while the OR of $\varepsilon 2/\varepsilon 3$ in Anthopoulos et al' reaches statistical significance. However, the estimates of the results from Anthopoulos et al' study are likely to be attenuated due to the small sample size. Our findings demonstrate that individuals with the genotype carrying single allele ε^2 ($\varepsilon^2/\varepsilon^3$ and $\varepsilon^2/\varepsilon^4$) are not at the risk of T2DM while those carrying two ε^2 allele ($\varepsilon^2/\varepsilon^2$) possess higher risk for T2DM, which also coincides with the finding that the higher frequency of the $\epsilon 2/APOE$ allele might be primarily related to T2DM (ERRERA et al. 2006).

The significance of the present study is that we identified significant association between *ApoE* gene polymorphism and T2DM, which will provide clues for the etiology of T2DM and even molecular marker of targeted therapy for the treatment of T2DM. However, it is essential to further investigate the interaction between gene and gene as well as the gene and environment since T2DM is the result of interaction between genetic and environmental factors.

In conclusion, there is an association between *ApoE* polymorphism and T2DM: allele $\varepsilon 4$ and genotypes ($\varepsilon 2/\varepsilon 2$, $\varepsilon 3/\varepsilon 4$, and $\varepsilon 4/\varepsilon 4$) are associated with the increased risk for the development of T2DM, and they may be risk factors for T2DM.

Author Contributions

Conception and design: Shuping Ren. Provision of study materials: Dawei Chen, Jikang Shi, and Yun Li. Collection and assembly of data: Dawei Chen, Jikang Shi, Yun Li, and Yu Yang. Data analysis and interpretation: Jikang Shi and Hui Yang. Manuscript writing: Dawei Chen, Shuping Ren. Revised the language/article: All authors. Final approval of manuscript: All authors.

Conflict of interest

The authors declare no conflict of interest.

Acknowledgements

This work was supported by the funds from Jipai Runda Environmental Inspection Technology

Corporation Limited of Beijing (Grant No. 2015YX252) and Leshiguang Measurement Technology

Corporation Limited (Grant No. 2018YX046).

References

- 2016 Worldwide trends in diabetes since 1980: a pooled analysis of 751 population-based studies with 4.4 million participants. Lancet **387:** 1513-1530.
- AIMEI LONG, Y. Z., XIAOQING HUANG, MINGJING SHEN, HUI CHEN, 2013 Meta-Analysis: Association of Apolipoprotein E Gene Polymorphism
- with Type 2 Diabetes Mellitus in Chinese Population. The Journal of Evidence-Based Medicine **13:** 57-60.
- AL-MAJED, H. T., J. A. QASEM, A. K. AL-SHERIFI, A. A. AL-ATTAR, A. A. QASEM *et al.*, 2011 Association between apolipoprotein E-polymorphism and Ischemic heart disease patients with or without type 2 diabetes mellitus: a preliminary study in Kuwait. Arch Iran Med **14:** 385-388.
- ALHARBI, K. K., I. A. KHAN and R. SYED, 2014 Association of apolipoprotein E polymorphism with type 2 diabetes mellitus in a Saudi population. DNA Cell Biol **33**: 637-641.
- ANTHOPOULOS, P. G., S. J. HAMODRAKAS and P. G. BAGOS, 2010 Apolipoprotein E polymorphisms and type 2 diabetes: a meta-analysis of 30 studies including 5423 cases and 8197 controls. Mol Genet Metab **100**: 283-291.
- ATTA, M. I., K. ABO GABAL, K. EL-HADIDI, M. SWELLAM, A. GENINA *et al.*, 2016 Apolipoprotein E genotyping in Egyptian diabetic nephropathy patients. IUBMB Life **68:** 58-64.
- BASU, S., J. S. YUDKIN, S. KEHLENBRINK, J. I. DAVIES, S. H. WILD *et al.*, 2019 Estimation of global insulin use for type 2 diabetes, 2018-30: a microsimulation analysis. Lancet Diabetes Endocrinol **7**: 25-33.
- BEGG, C. B., and M. MAZUMDAR, 1994 Operating characteristics of a rank correlation test for publication bias. Biometrics **50**: 1088-1101.
- BENNET, A. M., E. DI ANGELANTONIO, Z. YE, F. WENSLEY, A. DAHLIN *et al.*, 2007 Association of apolipoprotein E genotypes with lipid levels and coronary risk. JAMA **298**: 1300-1311.
- BIN XIONG, Y. N., XIUZHEN ZHU, 2005 Relativity between apolipoprotein E,fatty acid binding 2 polymorphism and type 2 diabetes mellitus patients with nephropathy.

CLINICAL FOCUS **20:** 367-370.

BOMMER, C., E. HEESEMANN, V. SAGALOVA, J. MANNE-GOEHLER, R. ATUN *et al.*, 2017 The global economic burden of diabetes in adults aged 20-79 years: a cost-of-illness study. Lancet Diabetes Endocrinol **5**: 423-430.

CHAUDHARY, R., A. LIKIDLILID, T. PEERAPATDIT, D. TRESUKOSOL, S. SRISUMA *et al.*, 2012 Apolipoprotein E gene polymorphism: effects on plasma lipids and risk of type 2 diabetes and coronary artery disease. Cardiovasc Diabetol **11**: 36.

CHEN, X., 2006 Relationship between paraoxonase 1, paraoxonase 2 and

apoliplprotein E gene polymorphisms and type 2 diabetes

nephropathy pp. Fujian Medical University.

- DALLONGEVILLE, J., S. LUSSIER-CACAN and J. DAVIGNON, 1992 Modulation of plasma triglyceride levels by apoE phenotype: a meta-analysis. J Lipid Res **33**: 447-454.
- DAVIES, L. E., and K. THIRLAWAY, 2013 The influence of genetic explanations of type 2 diabetes on patients' attitudes to prevention, treatment and personal responsibility for health. Public Health Genomics **16:** 199-207.

ERDOGAN, M., Z. EROGLU, C. BIRAY, M. KARADENIZ, S. CETINKALP *et al.*, 2009 The relationship of the apolipoprotein E gene polymorphism Turkish Type 2 diabetic patients with and without nephropathy. J Endocrinol Invest **32**: 219-222.

- ERRERA, F. I., M. E. SILVA, E. YEH, C. M. MARANDUBA, B. FOLCO *et al.*, 2006 Effect of polymorphisms of the MTHFR and APOE genes on susceptibility to diabetes and severity of diabetic retinopathy in Brazilian patients. Braz J Med Biol Res **39**: 883-888.
- ETO, M., K. HORITA, A. MORIKAWA, H. NAKATA, M. OKADA *et al.*, 1995 Increased frequency of apolipoprotein epsilon 2 allele in non-insulin dependent diabetic (NIDDM) patients with nephropathy. Clin Genet **48**: 288-292.
- ETO, M., K. WATANABE, Y. IWASHIMA, A. MORIKAWA, E. OSHIMA *et al.*, 1986 Apolipoprotein E polymorphism and hyperlipemia in type II diabetics. Diabetes **35**: 1374-1382.
- FARRER, L. A., L. A. CUPPLES, J. L. HAINES, B. HYMAN, W. A. KUKULL *et al.*, 1997 Effects of age, sex, and ethnicity on the association between apolipoprotein E genotype and Alzheimer disease. A meta-analysis. APOE and Alzheimer Disease Meta Analysis Consortium. JAMA 278: 1349-1356.
- GE, B., J. CHEN, G. TIAN, Q. LI and A. DAMIRI, 2013 The relationship between apolipoprotein E polymorphism and dyslipidemia

in patients with type 2 diabetes. CHINA MEDICAL HERALD 10: 17-19+23.

- GUAN, J., H. L. ZHAO, L. BAUM, Y. SUI, L. HE *et al.*, 2009 Apolipoprotein E polymorphism and expression in type 2 diabetic patients with nephropathy: clinicopathological correlation. Nephrol Dial Transplant **24**: 1889-1895.
- GUANGDA, X., X. BANGSHUN, L. XIUJIAN and H. YANGZHONG, 1999 Apovarepsilon(4) allele increases the risk for exercise-induced silent myocardial ischemia in non-insulin-dependent diabetes mellitus. Atherosclerosis **147**: 293-296.
- GUANGDA XIANG, S. X., YANZHONG HE, LING LE, DONGCHU HE, 1999 The relationship of Apo E2 and renal insufficiency lipid levels in NIDDM. Natl Med J China: 339.
- GUANGDA XIANG, Y. H., WEN JIANG, TAIHONG HU, 2005 Apolipoproteine 4 allele is associated with the decrease of endothelium-dependent arterial dilation in female

patients with type 2 diabetes mellitus. Chin J Endocrinol Metab **21**: 9-12.

- GUANGWU ZHANG, A. Z., ZEFENG XU, 2007 Study on the relationship between apolipoprotein E(Apo E)gene polymorphism and Chinese patients with type 2 diabetes mellitus and diabetogenous nephropathy(DN). ZHEJIANG JOURNAL OF CLINICAL MEDICINE **9:** 735-736.
- GUO, J., P. LI and Z. SU, 2003 Preliminary analysis on relationship between ApoE gene

polymorphism and type 2 diabetes. Journal of Tianjin Medical University: 532-534.

HIGGINS, J. P., S. G. THOMPSON, J. J. DEEKS and D. G. ALTMAN, 2003 Measuring inconsistency in meta-analyses. BMJ **327**: 557-560.

- HUA, F., W. LIU, W. HU and Y. TANG, 2006 Research on the association of ApoE gene polymorphism and type 2 diabetes mellitus with nephropathy. SUZHOU UNIVERS ITY JOURNAL OF MEDICAL SCIENCE: 837-838+860.
- HUA, F., Y. SHEN, W. HUA, X. DONG and L. ZHENG, 2004 Association of carrier protein E gene polymorphism with diabetes mellitus with gallstone. Jiangsu Med J 182-184.
- INAMDAR, P. A., S. M. KELKAR, T. P. DEVASAGAYAM and M. M. BAPAT, 2000 Apolipoprotein E polymorphism in non-insulin-dependent diabetics of Mumbai, India and its effect on plasma lipids and lipoproteins. Diabetes Res Clin Pract **47**: 217-223.
- JIANQIU LONG, X. W., SHUFU YANG , JUN GAO, AIMEI GU, 1999 The Determination of Apolipoprotein E Genetic

Polymorphism in Diabetics. Journal of Navy Medicine 42-44.

- JINJING GUO, J. J., XIANGHONG XU, 2007 Association of apolipoprotein E gene polymorphism, hypersensitive C-reactive protein and type 2 diabetes mellitus with coronary heart disease. Shuanxi Medical Journal: 1613-1616.
- KAMBOH, M. I., C. E. ASTON and R. F. HAMMAN, 1995 The relationship of APOE polymorphism and cholesterol levels in normoglycemic and diabetic subjects in a biethnic population from the San Luis Valley, Colorado. Atherosclerosis **112**: 145-159.
- KWON, M. K., S. Y. RHEE, S. CHON, S. OH, J. T. WOO *et al.*, 2007 Association between apolipoprotein E genetic polymorphism and the development of diabetic nephropathy in type 2 diabetic patients. Diabetes Res Clin Pract **77 Suppl 1:** S228-232.
- LEIVA, E., V. MUJICA, R. ORREGO, M. PRIETO and M. ARREDONDO, 2005 Apolipoprotein E polymorphism in type 2 diabetic patients of Talca, Chile. Diabetes Res Clin Pract **68**: 244-249.
- LI ZHANG, M. Y., 1999 Association between apolipoprotein E gene polymorphism and type II diabetic nephropathy.

ACTA UNIVERSITATIS MEDICINALIS ANHUI **34:** 102.

- LIANG, A., S. HE, X. HUA, Y. LEI, H. SUI *et al.*, 2017 Correlation between ApoE gene polymorphism and chronic cardiovascular disease and blood ipid levels of patients. International Journal of laboratory medicine **38**: 1601-1602+1605.
- LIQUN GU, S. L., MIN PAN, HUI CHEN, HUAIJIN GUAN, JIANHUA ZHU, 2004 Study in the Relationships between Apolipoprotein E Gene Polymorphism and Diabetic Retinopathy. CHINESE JOURNAL OF MISDIAGNOSTICS **4:** 664-666.
- LIU, L., K. XIANG, T. ZHENG, R. ZHANG, M. LI *et al.*, 2003 Co-inheritance of specific genotypes of HSPG and ApoE gene increases risk of type 2 diabetic nephropathy. Mol Cell Biochem **254:** 353-358.
- LIU, W., 2014 FOXC2, APOE, eNOS gene polymorphism with type 2 diabetes in Yunnan Naxi correlation, pp. Kunming Medical University.
- LIU, W., L. YANG, X. NIAN, G. ZHAO, H. LI *et al.*, 2016 The correlation between ApoE gene polymorphism with type 2 diabetes in Yuannan Naxi minority

Chinese Journal of Diabetes **24:** 402-406.

Luo, E., Q. YANG and X. LI, 2016 Analysis on the association between Apolipoprotein E Gene Polymorphism and renal Complications in

Chinese Type 2 Diabetic Patients. Journal of Qiqihar University of Medicine **37:** 3130-3132.

- MAHLEY, R. W., and S. C. RALL, JR., 2000 Apolipoprotein E: far more than a lipid transport protein. Annu Rev Genomics Hum Genet **1**: 507-537.
- MCCARRON, M. O., D. DELONG and M. J. ALBERTS, 1999 APOE genotype as a risk factor for ischemic cerebrovascular disease: a meta-analysis. Neurology **53**: 1308-1311.

- MEHMET, E., E. ZUHAL, K. MUSTAFA, S. SONER, T. ASLI *et al.*, 2016 The relationship of the apolipoprotein E gene polymorphism in Turkish Type 2 Diabetic Patients with and without diabetic foot ulcers. Diabetes Metab Syndr **10**: S30-33.
- MORBOIS-TRABUT, L., C. CHABROLLE, M. A. GARRIGUE, G. LASFARGUES and P. LECOMTE, 2006 Apolipoprotein E genotype and plasma lipid levels in Caucasian diabetic patients. Diabetes Metab **32:** 270-275.
- MUSTAPIC, M., M. POPOVIC HADZIJA, M. PAVLOVIC, P. PAVKOVIC, P. PRESECKI *et al.*, 2012 Alzheimer's disease and type 2 diabetes: the association study of polymorphisms in tumor necrosis factor-alpha and apolipoprotein E genes. Metab Brain Dis **27**: 507-512.
- NG, M. C., L. BAUM, W. Y. SO, V. K. LAM, Y. WANG *et al.*, 2006 Association of lipoprotein lipase S447X, apolipoprotein E exon 4, and apoC3 -455T>C polymorphisms on the susceptibility to diabetic nephropathy. Clin Genet **70**: 20-28.
- O'RAHILLY, S., I. BARROSO and N. J. WAREHAM, 2005 Genetic factors in type 2 diabetes: the end of the beginning? Science **307**: 370-373.
- POWELL, D. S., H. MAKSOUD, S. B. CHARGE, J. H. MOFFITT, M. DESAI *et al.*, 2003 Apolipoprotein E genotype, islet amyloid deposition and severity of Type 2 diabetes. Diabetes Res Clin Pract **60**: 105-110.
- QIAN XIANG, Y. W., DIANPING SONG, HUA LIU, YUMING WANG, BO CHEN, ROU SHI, 2010 The study of the association of apolipoprotein E(ApoE) gene polymorphism with diabetic nephropathy in type 2 diabetic patients.

CHINESE JOURNAL OF DIABETES **18:** 185-186.

- QINGFU DAI, Y. W., 2000 A STUDIES ON THE RELATIONSHIP BETWEEN APO E SEVELS AND GENOTYPES IN DIABETIE-NEPHROPATHY. Modern Journal of Integrated Chinese and Western Medicine: 2321-2322.
- QIU XU, S. L., GANGYI YANG, LING LI, JIANHONG LU, 2010 Association of ApoE gene polymorphisms and type 2 diabetes mellitus in Chinese
- population: a Meta-analysisstudy. CTA ACADEMIAE MEDICINAE MILITARIS TERTIAE **32:** 164-168.
- QIU, Y., 2008 Relationship between variation of apolipoprotein E gene and type 2 diabetes mellitus with carotid atherosclerosis. Zhejiang Practical Medicine 157-159+168.
- RONG, Y., Y. XIE, X. CHEN and B. ZHOU, 2013 Analysis fo the correlation among insulin resistance ApoE gene polymorphism and mild cognitive impairment. Hebei Medicine **19:** 1604-1607.
- SANTOS, A., M. L. SALGUERO, C. GURROLA, F. MUNOZ, E. ROIG-MELO *et al.*, 2002 The epsilon4 allele of apolipoprotein E gene is a potential risk factor for the severity of macular edema in type 2 diabetic Mexican patients. Ophthalmic Genet **23**: 13-19.
- SCHEUNER, M. T., P. SIEVERDING and P. G. SHEKELLE, 2008 Delivery of genomic medicine for common chronic adult diseases: a systematic review. JAMA **299**: 1320-1334.
- SHEN, H., L. LIU, K. XIANG, C. LONG, Q. WENG *et al.*, 2002a Relationship between ApoE gene polymorphism and type 2 diabetes mellitus with

its nephropathy in Chinese. Chinese Journal of Diabetes: 2-4.

- SHEN, Q., X. CHEN, P. LI, M. LIN, M. LIN *et al.*, 2002b Relationship between polymorphism of APOE gene and plasma catenin and protein C in elderly type 2 diabetes mellitus. F J Medical Journal: 75-77.
- SHU LIANG, M. P., HUI CHENG, HUAIJIN GUAN, CHUNJI BIAN, 2005 Relationship of angiotensin converting enzyme and apolipoprotein E gene polymorphism with diabetic retinopathy. International Journal of Ophthamology 5: 1156-1159.
- SINGH, P. P., I. NAZ, A. GILMOUR, M. SINGH and S. MASTANA, 2006a Association of APOE (Hha1) and ACE (I/D) gene polymorphisms with type 2 diabetes mellitus in North West India. Diabetes Res Clin Pract **74**: 95-102.

- SINGH, P. P., M. SINGH and S. S. MASTANA, 2006b APOE distribution in world populations with new data from India and the UK. Ann Hum Biol **33**: 279-308.
- SONG, Y., M. J. STAMPFER and S. LIU, 2004 Meta-analysis: apolipoprotein E genotypes and risk for coronary heart disease. Ann Intern Med **141**: 137-147.
- SUN, L., S. WANG, X. SHI and Z. YANG, 2013a Interactionsbetween APOE and M THFR M utationsisAssociated with

the Risk for Type2 Diabetic Nephropathy. Journal of Medical Molecular Biology 10: 95-99.

SUN, L., S. WANG, X. SHI and Z. YANG, 2013b Interactionsbetween APOE and THFR M utationsisAssociated with

the Risk for Type2 Diabetic Nephropathy. J Med Mol Biol **10:** 95-99.

TANG, L., X. WANG, K. YU, H. ZHANG, J. ZHENG *et al.*, 2007 Correlative analysis of apolipoprotein B,E gene polymorphism and several common

diseases in southern area of Zhejiang Province Journal of Wenzhou Medical College: 14-17.

- VAUHKONEN, I., L. NISKANEN, M. RYYNANEN, R. VOUTILAINEN, J. PARTANEN *et al.*, 1997 Divergent association of apolipoprotein E polymorphism with vascular disease in patients with NIDDM and control subjects. Diabet Med **14**: 748-756.
- WANG, Y., Z. XIAO and P. HUANG, 2014 Studies on relationship between apolipoprotein E genotype polymorphism and diabetic nephropathy in Chinese Han population of Guangdong Province. Journal of practical Medicine **30:** 3090-3092.
- XIANGJIU YANG, G. X., XIAOHUA DING, YOUYUN FAN, YANCHENG XU, YING ZHANG, 1995 Relationship between coronary heart disease and apolipoprotein E genotype in patients with type 2 diabetes mellitus in Wuhan. Chinese Journal of Endocrine and Metabolism: 206-210+250.
- XIE, Y. Q., H. WANG, Y. P. WU, D. H. YIN, Z. S. WANG *et al.*, 2011 Association of APOE polymorphisms and insulin resistance with TCM syndromes in type 2 diabetes patients with macroangiopathy. Mol Med Rep **4**: 1219-1223.
- XIONG, Y., H. PEI, S. QIAN, K. CUI, Q. CAI *et al.*, 2013 Study on the correlation between dyslipidemia and apolipoprotein E gene polymorphism in Li nationality population T2DM patients. Chinese Journal of Diabetes **21**: 822-824.
- YIN, Y. W., L. QIAO, Q. Q. SUN, A. M. HU, H. L. LIU *et al.*, 2014 Influence of apolipoprotein E gene polymorphism on development of type 2 diabetes mellitus in Chinese Han population: a meta-analysis of 29 studies. Metabolism **63**: 532-541.
- YU XIONG, X. Z., SONGMEI LIU, YAN YANG, XIYING QU, YAN XIE, HANNING HU, ZHIYU PANG, 2008 The Association of Apolipoprotein E Genotype with Type 2 Diabetes Mellitus.

CHINESE JOURNAL OF MICROCIRCULATION 18: 28-29,33,封 23.

ZHANG, W., G. ZHANG, H. ZHANG, Y. FANG, Z. XU *et al.*, 2000 Relationship between Apo E gene polymorphism and type 2 diabetes mellitus with its cardiovascular

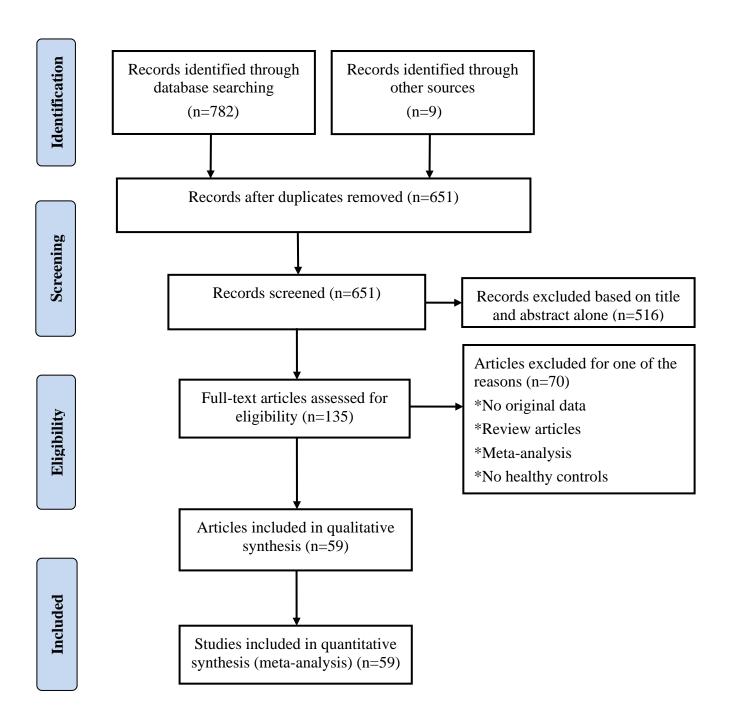
complication in Chinese. Medical Journal of Chinese Civil Administration: 206-209.

- ZHANG, X., B. LIU, H. BAI, H. TIAN, Z. WU *et al.*, 2003 Study on Apolipoprotein E Gene Polymorphism in Chinese Type 2 Diabetes Mellitus. J Sichuan Univ (Med Sci Edi): 75-77.
- ZHENG, Y., R. SUN, X. LI, M. GAO, L. ZHAO *et al.*, 1998 Relationshipbetween ApoE gene polymorphism and type 2 diabetes mellitus with its cardiovascular complications in

Chinese. Chin J Endocrinol Metab: 14-17.

ZHOU, J., Y. XUE, Y. GUAN, Y. YANG, S. FU *et al.*, 2005 Association Study of Apolipoprotein E Gene Polymorphism and

Cerebral Infarction in Type 2 Diabetic Patients. HEREDITAS 27: 35-38.



	_ .							
Study	Experim Events			ontrol Total	Odds Ratio	OR	95%-CI	Weight
otaay	2101110	. o tai						
Singh 2006	8	173	9	177		0.91	[0.34; 2.40]	1.5%
Al-Majed 2011	18	172	8	112		1.52	[0.64; 3.62]	1.7%
Chaudhary 2012 Errera 2006	5 14	271 174	16 7	275 191		0.30 2.30	[0.11; 0.84]	1.5% 1.6%
Alharbi 2014	109	750	83	829		1.53	[0.91; 5.84] [1.13; 2.07]	2.9%
Inamdar 2000	105	73	13	50		0.74	[0.31; 1.72]	1.7%
Kwon 2007	16	169	5	162		3.28	[1.17; 9.18]	1.4%
Atta 2016	24	69	6	78		6.40	[2.43; 16.87]	1.5%
Vauhkonen 1997	10	133	11	205		1.43	[0.59; 3.48]	1.7%
Erdogan 2009	4	100	0	63			[0.31; 111.90]	0.3%
Eto 1986	9	185	13	199		0.73	[0.31; 1.75]	1.7%
Guan 2009	55	393	14	210		2.28	[1.23; 4.20]	2.2%
Leiva 2005 Liu 2003	16 11	337 146	13 4	236 147		0.86 2.91	[0.40; 1.81] [0.91; 9.37]	1.9% 1.2%
Mehmet 2015	6	187	22	91		0.10	[0.04; 0.27]	1.6%
Xie 2011	17	65	7	31		1.21	[0.44; 3.33]	1.5%
Mustapic 2012	37	356	52	832	-	1.74	[1.12; 2.70]	2.6%
Santos 2002	0	67	5	35		0.04	[0.00; 0.77]	0.3%
Kamboh 1995	28	201	119	1121		1.36	[0.88; 2.12]	2.6%
Ng 2006	66	722	40	375		0.84	[0.56; 1.28]	2.7%
Eto 1995	28	492	43	1017		1.37	[0.84; 2.23]	2.5%
Morbois Trabut 2006	36	386	95	841		0.81	[0.54; 1.21]	2.7%
Powell 2003	31 16	258 168	12 11	154 131	1	1.62 1.15	[0.80; 3.25]	2.0% 1.8%
Guangda 1999 Zhang 2000	7	120	8	131	1:	0.95	[0.51; 2.57] [0.33; 2.71]	1.6%
Zhang 2000	6	133	26	348		0.59	[0.33, 2.71]	1.6%
Sun 2013	48	465	17	145	-	0.87	[0.48; 1.56]	2.3%
Hua 2006	12	172	9	179	-	1.42	[0.58; 3.45]	1.7%
Guo 2003	6	65	6	95		1.51	[0.46; 4.90]	1.2%
Liang 2017	6	78	73	702		0.72	[0.30; 1.71]	1.7%
Shen 2002	11	197	18	196	<u>+</u>	0.58	[0.27; 1.27]	1.9%
Zheng 1998	21	210	10	114		1.16	[0.52; 2.55]	1.9%
Hua 2004	11 20	70 399	5 4	107 571		3.80	[1.26; 11.48]	1.3%
Liu 2014 Xiang 1995	20	218	4 5	91		7.48 1.74	[2.54; 22.06] [0.63; 4.78]	1.4% 1.5%
Chen 2006	20	183	22	194		0.96	[0.50; 1.82]	2.2%
Xiang 1999	21	229	5	91	- 	1.74	[0.63; 4.75]	1.5%
Shen 2002	19	52	10	87		4.43	[1.86; 10.56]	1.7%
Xiong 2013	16	206	17	196		0.89	[0.43; 1.81]	2.0%
Zhou 2005	14	127	13	125	<u> </u>	1.07	[0.48; 2.37]	1.8%
Xiang 2005	13	173	13	168	 E	0.97	[0.44; 2.16]	1.8%
Long 1999	18	117	22	254	Ē	1.92	[0.99; 3.73]	2.1%
Liang 2005 Gu 2004	23 12	262 114	14 14	170 170		1.07 1.31	[0.54; 2.15] [0.58; 2.95]	2.1% 1.8%
Yang 1995	20	218	6	90		1.41	[0.55; 3.65]	1.6%
Rong 2013	4	46	8	75		0.80	[0.23; 2.81]	1.1%
Liu 2016	28	557	4	575			[2.63; 21.68]	1.4%
Tang 2007	3	70	4	106		1.14	[0.25; 5.26]	0.9%
Qiu 2008	17	235	22	203		0.64	[0.33; 1.24]	2.1%
Guo 2007	4	70	7	72		0.56	[0.16; 2.01]	1.1%
Xiong 2008	28	553	63	916	· ·	0.72	[0.46; 1.14]	2.6%
Ge 2013	43 6	323 74	64	357		0.70	[0.46; 1.07]	2.6%
Xiang 2010 Luo 2016	4	65	13 5	185 90	<u>1</u>	1.17	[0.43; 3.20] [0.29; 4.32]	1.5% 1.0%
Zhang 2007	2	71	3	89	_	0.83	[0.14; 5.11]	0.7%
Wang 2014	6	89	15	86		0.34	[0.13; 0.93]	1.5%
Zhang 2002	4	98	11	139		0.50	[0.15; 1.60]	1.2%
Xiong 2005	8	59	5	57	- =	1.63	[0.50; 5.32]	1.2%
Dai 2000	5	59	15	166		0.93	[0.32; 2.69]	1.4%
Random effects mode		2224		14902		1.16	[0.98; 1.37] 1	00.0%
Heterogeneity: $I^2 = 62\%$, a	$t^{-} = 0.2306,$	p < 0.0)1					
					0.01 0.1 1 10 100			

	_							
Study	Experin Events			ontrol Total	Odds Ratio	OR	05% CI	Weight
Study	Events	TOtal	Evenus	TOtal		UK	30 /0-01	weight
Singh 2006	7	172	17	185		0.42	[0.17; 1.04]	1.4%
Al-Majed 2011	38	192	12	116	 		[1.07; 4.29]	1.1%
Chaudhary 2012	39	305	23	282	-		[0.96; 2.84]	1.8%
Errera 2006 Alharbi 2014	14 126	174 767	23 91	207 837			[0.35; 1.41]	1.7% 6.4%
Inamdar 2000	47	105	30	67			[1.21; 2.15] [0.54; 1.85]	1.8%
Kwon 2007	19	172	14	171			[0.67; 2.88]	1.1%
Atta 2016	21	66	12	84	1		[1.26; 6.24]	0.6%
Vauhkonen 1997	39	162	45	239			[0.84; 2.22]	2.4%
Erdogan 2009	12	108	7	70			[0.42; 3.01]	0.7%
Eto 1986	25 33	201 371	23 12	209 208			[0.63; 2.10]	1.7%
Guan 2009 Leiva 2005	48	369	42	200			[0.80; 3.16] [0.51; 1.24]	1.2% 3.7%
Liu 2003	12	147	11	154	<u>i</u>		[0.49; 2.71]	0.9%
Mehmet 2015	13	194	9	78			[0.23; 1.35]	1.1%
Xie 2011	55	103		33		3.06	[1.30; 7.21]	0.6%
Mustapic 2012	36	355	80	860	- <u>+</u> -		[0.73; 1.67]	3.7%
Santos 2002	5	72	9	39			[0.08; 0.81]	1.0%
Kamboh 1995 Ng 2006	31 50	204 706	197 25	1199 360	<u> </u>		[0.60; 1.38] [0.62; 1.68]	4.3% 2.7%
Eto 1995	70	534	135	1109			[0.80; 1.48]	6.7%
Morbois Trabut 2006		384	121	867			[0.40; 0.89]	5.9%
Powell 2003	36	263	22	164			[0.58; 1.81]	2.1%
Guangda 1999	10	162	13	133			[0.26; 1.43]	1.2%
Zhang 2000	6	119		132			[0.25; 2.10]	0.7%
Zhang 2003	15 21	142 438	34	356			[0.59; 2.12]	1.5%
Sun 2013 Hua 2006	21	430	9 21	137 191			[0.32; 1.60] [0.77; 2.60]	1.1% 1.6%
Guo 2003	15	74	9	98			[1.03; 6.12]	0.5%
Liang 2017	10	82		675			[0.92; 3.93]	0.8%
Shen 2002	15	201	24	202			[0.30; 1.18]	1.9%
Zheng 1998	14	203	6	110			[0.48; 3.44]	0.6%
Hua 2004	6	65	13	115			[0.29; 2.21]	0.7%
Liu 2014 Xiang 1995	31 32	410 230	25 9	592 95			[1.08; 3.19]	1.7% 1.0%
Chen 2006	11	174	14	186			[0.71; 3.37] [0.37; 1.88]	1.1%
Xiang 1999	31	239	9	95			[0.65; 3.12]	1.0%
Shen 2002	16	49	13	90			[1.24; 6.64]	0.5%
Xiong 2013	36	226	28	207	-	1.21		2.2%
Zhou 2005	7	120	11	123			[0.24; 1.69]	0.9%
Xiang 2005	29	189 116	22	177 248			[0.70; 2.32] [1.21; 5.13]	1.7% 0.8%
Long 1999 Liang 2005	17 28	267	16 10	166			[0.86; 3.87]	1.0%
Gu 2004	12	114		166			[0.76; 4.40]	0.6%
Yang 1995	32	230	10	94			[0.64; 2.89]	1.1%
Rong 2013	2	44		68			[0.28; 36.29]	0.1%
Liu 2016	43	572	25	596	+		[1.12; 3.08]	2.0%
Tang 2007	12	79	14	116			[0.57; 2.99]	0.8%
Qiu 2008 Guo 2007	23 12	241 78	17 8	198 73	<u> </u>		[0.58; 2.17] [0.57; 3.85]	1.5% 0.6%
Xiong 2008	79	604	108	961	1;-		[0.87; 1.62]	6.4%
Ge 2013	77	357		356	<u><u> </u></u>		[0.88; 1.85]	4.3%
Xiang 2010	8	76		191			[0.45; 2.55]	0.8%
Luo 2016	5	66	10	95			[0.23; 2.14]	0.7%
Zhang 2007	5	74		95			[0.22; 2.16]	0.6%
Wang 2014 Zhang 2002	25 14	108 108		95 143			[0.47; 1.70] [0.50: 2.76]	1.7%
Zhang 2002 Xiong 2005	14	56		55			[0.59; 2.76] [0.39; 7.48]	1.0% 0.2%
Dai 2000	5	59		165			[0.34; 2.90]	0.6%
Fixed effect model		12686		15398		1.18	[1.09; 1.28]	100.0%
Heterogeneity: $I^2 = 369$	%, τ¯ = 0.0	549, p	< 0.01		0.1 0.5 1 2 10			
					0.1 0.3 1 2 10			

	-						
Study	Experimen Events To	ital Conta	ontrol Total	Odds Ratio	OR	95%-CI	Weight
-							-
Singh 2006		79 1 80 2	75 48		0.95	[0.06; 15.45]	1.2%
Al-Majed 2011 Chaudhary 2012		18 2	40 115		2.21 0.48	[0.44; 11.08] [0.04; 5.40]	2.7% 2.4%
Errera 2006		68 0	77		0.40	[0.04, 5.40]	2.4%
Alharbi 2014	-	25 27	361	<u>+</u>	1.49	[0.88; 2.53]	27.2%
Inamdar 2000		19 1	11	<u> </u>	1.18	[0.09; 14.69]	1.4%
Kwon 2007		63 0	70	li l		[0.00, 1.000]	0.0%
Atta 2016		12 0	30				0.0%
Vauhkonen 1997	0	48 0	76				0.0%
Erdogan 2009	-	40 0	28				0.0%
Eto 1986		73 1	81		0.37	[0.01; 9.10]	1.7%
Guan 2009		49 1	89	1	4.99	[0.61; 40.60]	1.4%
Leiva 2005		33 0	87				0.0%
Liu 2003 Mehmet 2015		56 0 81 0	64 19				0.0% 0.0%
Xie 2011	0	8 1	9		0.33	[0.01; 9.40]	1.6%
Mustapic 2012		27 1	329		0.86	[0.03; 21.22]	1.0%
Santos 2002		32 1	11		0.11	[0.00; 2.85]	2.6%
Kamboh 1995		62 6	388		0.47	[0.03; 8.46]	2.1%
Ng 2006		86 1	143	1	2.01	[0.22; 18.19]	1.6%
Eto 1995	1 1	93 2	416		1.08	[0.10; 11.96]	1.5%
Morbois Trabut 2006	2 1	45 5	299		0.82	[0.16; 4.29]	3.8%
Powell 2003		92 2	59		0.96	[0.16; 5.93]	2.8%
Guangda 1999		67 1	54		0.80	[0.05; 13.14]	1.3%
Zhang 2000		50 0	56		0.04	10.00. 00.401	0.0%
Zhang 2003		55 1 86 2	135 57		0.81	[0.03; 20.13]	1.0%
Sun 2013 Hua 2006		86 2 70 0	75		0.92 5.51	[0.18; 4.67] [0.26; 116.82]	3.5% 0.6%
Guo 2003		23 0	39		0.01	[0.20, 110.02]	0.0%
Liang 2017		32 5	272	i	1.72	[0.19; 15.22]	1.2%
Shen 2002		85 1	75	<u>_</u>	0.88	[0.05; 14.33]	1.3%
Zheng 1998		83 1	46	ki	1.11	[0.10; 12.60]	1.5%
Hua 2004	1	25 0	45		5.57	[0.22; 141.99]	0.4%
Liu 2014		84 2	274		7.82	[1.69; 36.10]	1.8%
Xiang 1995		80 0	38		2.45	[0.11; 52.34]	0.8%
Chen 2006		72 1	73		2.06	[0.18; 23.20]	1.2%
Xiang 1999		88 0	38		3.15	[0.16; 62.52]	0.8%
Shen 2002	3 0	7 0 72 1	31 73		9.00	[2.16; 1113.53]	0.1% 1.8%
Xiong 2013 Zhou 2005		47 2	48		0.33	[0.01; 8.32] [0.01; 4.19]	2.9%
Xiang 2005		66 1	66		1.00	[0.06; 16.33]	1.2%
Long 1999		36 0	101			[0.00, 10.00]	0.0%
Liang 2005	0 1	02 0					0.0%
Gu 2004		43 0	68	li li			0.0%
Yang 1995		80 1	39		0.97	[0.09; 11.09]	1.6%
Rong 2013		18 0	29				0.0%
Liu 2016		257 2			7.89	[1.78; 35.08]	2.2%
Tang 2007		28 0	43		0.07	10.04. 0.051	0.0%
Qiu 2008		95 1	77		0.27	[0.01; 6.65]	2.0%
Guo 2007 Xiong 2008		29 1 32 3	28 362		0.31 1.04	[0.01; 7.95] [0.17; 6.28]	1.8% 2.8%
Ge 2013		.52 5 89 8			0.45	[0.12; 1.75]	8.2%
Xiang 2010		28 0	70		0.40	[0.12, 1.10]	0.0%
Luo 2016		28 0	38				0.0%
Zhang 2007	0	32 0					0.0%
Wang 2014		33 2	30		0.17	[0.01; 3.69]	3.1%
Zhang 2002	0	40 1			0.46	[0.02; 11.50]	1.5%
Xiong 2005		23 0	23		3.13	[0.12; 81.00]	0.6%
Dai 2000	0	23 0	64				0.0%
Fixed effect model Heterogeneity: $I^2 = 0\%$		'97	5902		1.46	[1.11; 1.93]	100.0%
Heterogeneity: $I = 0\%$	$p, \tau = 0, p \neq 0$	0.00	0.0	01 0.1 1 10 1000			
			0.0				

Chaudhary 2012 - 1.83 0 7751 - 210 [0.42, 0.74] Errera 2006 0.74 0.4975 Alharbi 2014 0.51 0.3170 - 166 [0.04; 0.74] Inamdar 2000 - 0.65 0.6284 0.22 [0.15; 1.79] Atharbi 2016 2.30 0.7303 - 0.02 [2.99, 1184] Vauhkonen 1997 0.21 0.5366 - 1.23 [0.43, 3.53] Erdogan 2009 1.85 1.5106 6.33 [0.33, 122.32] Erdogan 2009 0.47 0.2845 0.99 [0.38; 2.56] Guan 2009 0.47 0.2845 0.62 [0.38; 1.09] Leiva 2005 0.24 0.4498 0.76 [0.33, 1.90] Liu 2003 1.15 0.6119 - 3.14 [0.95; 10.43] Mehmet 2015 -2.75 0.5264 0.06 [0.02; 0.18] Xic 2011 1.47 0.8126 1.43 0.06 [0.02; 0.18] Xic 2011 1.47 0.8126 1.43 0.05] Santos 2002 2.74 1.5893 0.06 [0.00; 1.48] Kamboh 1995 0.48 0.2713 1.51 1.51 [0.51; 1.35] Elor 1936 0.011 0.2322 0.00 [1.6] 0.00; 1.48] Kamboh 1995 0.48 0.2713 1.51 [1.5] [1.5] Elor 1936 0.011 0.2322 0.00 [1.6] 0.01 [1.6] Chang 2003 0.70 0.4659 1.21 [0.6] [1.6] [Study	TE	seTE	Odds Ratio	OR	95%-CI	We
At-Majed 2011 -0.87 0.9321	Singh 2006	-0.61 (0.6474		0.54	[0.15: 1.93]	
Chaudhary 2012 - 1.83 0 7751 - 210 [0.42, 0.74] Errera 2006 0.74 0.4975 Alharbi 2014 0.51 0.3170 - 166 [0.04; 0.74] Inamdar 2000 - 0.65 0.6284 0.22 [0.15; 1.79] Atharbi 2016 2.30 0.7303 - 0.02 [2.99, 1184] Vauhkonen 1997 0.21 0.5366 - 1.23 [0.43, 3.53] Erdogan 2009 1.85 1.5106 6.33 [0.33, 122.32] Erdogan 2009 0.47 0.2845 0.99 [0.38; 2.56] Guan 2009 0.47 0.2845 0.62 [0.38; 1.09] Leiva 2005 0.24 0.4498 0.76 [0.33, 1.90] Liu 2003 1.15 0.6119 - 3.14 [0.95; 10.43] Mehmet 2015 -2.75 0.5264 0.06 [0.02; 0.18] Xic 2011 1.47 0.8126 1.43 0.06 [0.02; 0.18] Xic 2011 1.47 0.8126 1.43 0.05] Santos 2002 2.74 1.5893 0.06 [0.00; 1.48] Kamboh 1995 0.48 0.2713 1.51 1.51 [0.51; 1.35] Elor 1936 0.011 0.2322 0.00 [1.6] 0.00; 1.48] Kamboh 1995 0.48 0.2713 1.51 [1.5] [1.5] Elor 1936 0.011 0.2322 0.00 [1.6] 0.01 [1.6] Chang 2003 0.70 0.4659 1.21 [0.6] [1.6] [
Errera 2006 0.74 0.4975 - 2.10 [0.79] 5.56] Aharbi 2014 0.51 0.3170 166 0.893 3.10] hamdar 2000 - 0.65 0.6284 289 [0.99] 8.151 Kwon 2007 1.06 0.5541 2.99 [0.99] 8.154] Kwon 2007 1.06 0.5541 2.99 [0.99] 8.154] Fudgan 2009 1.85 1.5106 163 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 122 32 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.99 [0.33] 123 33 Eto 1986 - 0.01 0.4871 - 0.06 [0.00] 1.46] Karboh 1995 - 0.43 0.2760 - 1.54 [0.90] 2.65] Morbois Trabut 2006 - 0.14 0.2464 - 0.33 [0.51] 1.33 Eto 1995 - 0.43 0.2760 - 1.54 [0.90] 2.65] Morbois Trabut 2006 - 0.46 0.6188 - 0.53 [0.19] 1.46] Shang 2000 - 0.45 0.6170 - 1.57 [0.47] 5.25] Zhang 2003 - 0.64 0.5188 - 0.53 [0.19] 1.46] Shang 2004 - 0.45 0.8170 - 1.57 [0.47] 5.25] Zhang 2003 - 0.64 0.5188 - 0.53 [0.19] 1.37] Zheng 1998 - 0.11 0.4712 - 1.11 [0.44] 2.80 Zhang 2004 - 0.15 0.3878 - 0.86 [0.40] 1.33] Xiang 1995 - 0.67 0.5930 - 1.55 [0.43] Xiang 1995 - 0.67 0.5930 - 1.55 [0.43] Xiang 1995 - 0.67 0.5930 - 1.55 [0.44] 2.80] Zhang 2005 - 0.30 0.4807 - 1.41 (0.55] 3.63] Xiang 2003 - 0.46 0.5188 - 0.45 [0.13] 1.53] Shen 2002 - 0.67 0.5916 - 0.51 [0.19] 1.37] Zheng 1998 - 0.11 0.4712 - 1.11 [0.44] 2.80 Xiang 2004 - 0.17 0.9462 - 0.44 [0.46] 0.51 [0.76] 1.234 Xiang 1995 - 0.67 0.5930 - 1.55 [0.64] - 1.55 [0.63] Xiang 2005 - 0.26 0.7347 - 1.46 [0.33] 1.53] Xiang 2005 - 0.26 0.7347 - 1.46 [0.33] 1.33] Zhen 2002 - 0.54 0.2890 - 0.54 0.2890 - 0.55 [0.734 - 0.46 [0.31] 2.85] Xiang 2004 - 0.74 0.4821 - 0.99 [0.32] 3.07] Eto 1999							
Aharbi 2014 0.51 0.3170 166 0.52 0.52 0.51 1.79 Kwon 2007 1.06 0.5541 2.89 0.98 8.56 Atta 2016 2.30 0.7303 10.00 [2.39 41.84 Vauhkonen 1997 0.21 0.5366 1.23 0.43 3.53 Erdogan 2009 1.85 1.5106 6.33 [0.33, 122.32] Evo 1986 0.01 0.4871 0.99 [0.33, 122.32] Evo 2005 -0.24 0.4498 0.76 [0.33, 120.33 1.99 Liva 2005 -0.24 0.4498 0.76 [0.33, 120.33 1.99 Mustapic 2012 0.63 0.2466 1.88 1.16 0.95 2.74 Kamboh 1995 0.44 0.2713 1.61 1.99 2.276 1.54 0.90 2.57 Santos 2002 2.74 1.5893 0.66 1.000 1.46 Xamboh 1995 0.44 0.33 1.90 2.26 1.60 2.01 1.61 1.90 2.63 1.40 1.90 2.64 2.01 1.81							
hamdar 2000 -065 0.6224 - 2.25 [0.15] 1.79] Kwon 2007 1.06 0.5541 - 2.89 [0.98] 8.56] Atta 2016 2.30 0.7303 - 10.00 [2.39] 4.84 Vauknoen 1997 0.21 0.5366 - 1.23 [0.43] 3.33 122.32] Eto 1986 -001 0.4871 - 0.99 [0.38] 1.256] Guan 2009 -0.47 0.2845 - 0.62 [0.02] 0.33 1.99] Liva 2005 -0.24 0.4498 - 0.78 [0.33] 1.90] Mustapic 2012 0.63 0.2456 - 4.33 [0.88] 2.10] Santos 2002 -27.41 5.893 - 0.66 [0.00] 1.46] Ng 2006 -0.18 0.2464 - 0.83 [0.51] 1.35] Powel 2003 0.70 0.4659 - 2.01 [0.81] 5.02 Chang 2003 -064 0.6188 - 0.63 [0.71] 5.02 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>:</td>							:
Kwon 2007 1 06 0 5541 289 [0.98; 8.56] Atta 2016 2 30 0.7303 10.00 [2.39; 41.84] Vaulkonen 1997 0.21 0.5366 123 [0.43; 3.53] Erdogan 2009 1.85 1.5106 6.33 [0.33; 122.32] Erdogan 2009 0.47 0.2845 0.29 [0.36; 1.09] Guan 2009 0.47 0.2845 0.62 [0.36; 1.09] Liva 2005 0.24 0.4498 0.78 [0.33; 1.29] Liva 2003 1.15 0.6119 3.14 [0.95; 10.43] Mustapic 2012 0.63 0.2456 1.88 [1.16; 3.05] Santos 2002 2.74 1.5893 0.06 [0.00; 1.46] Kamboh 1995 0.48 0.2713 1.61 [0.95; 2.74] Ng 2006 -0.18 0.2464 0.83 [0.51; 1.35] Elo 1995 0.48 0.2760 1.54 [0.09] Ouel 2003 0.70 0.4659 2.01 [0.81; 5.02] Guangda 1999 0.40 0.5038 1.49 [0.56; 4.00] Zhang 2000 0.45 0.6170 1.57 [0.47; 5.52] Guangda 1999 0.40 0.5038 1.49 [0.56; 1.28] Guangda 1999 0.40 0.5038 1.49 [0.56; 1.72] Guangda 1999							
Atta 2016 2.30 0.7303 10.00 (2.39, 41.84) Vauhkonen 1997 0.21 0.5366 1.23 (0.43, 35) Erdogan 2009 1.85 1.5106 6.33 (0.33, 122.32) Eto 1986 -0.01 0.4871 0.99 (0.38, 122.32) Leiva 2005 -0.24 0.4498 0.62 (0.36, 1.19) Leiva 2005 -0.24 0.4498 0.76 (0.33, 1.90) Liu 2003 1.15 0.6119 0.06 (0.02, 0.18) Mustapic 2012 0.83 0.246 0.06 (0.00, 1.46) Ka 2011 1.47 0.8126 1.88 1.161 (0.95, 2.74) Ng 2006 -0.48 0.2760 1.88 1.61 (0.95, 2.74) Ng 2006 -0.48 0.2760 1.54 (0.90, 2.66) Morbois Trabut 2006 -0.45 0.45 0.40 0.51 1.35 Powell 2003 0.70 0.4659 2.01 1.88 0.63 1.81 2.02 Chang 2000 0.45 0.6170 1.57 1.25 2.01 1.81				_			
Vauhkonen 1997 0.21 0.5366							
Erdogan 2009 1 85 15106 1 0 487 1 0 0 0 47 0 2845 1 0 0 28 1 0 0 0 47 0 2845 1 0 0 2 1 0 200 1 0 47 0 2845 1 0 0 2 1 0 200 1 1 5 0 6119 1 0 200 1 1 5 0 6119 1 0 200 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 9 1 0 0 1 0 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 47 0 8126 1 8 1 8 1 1 1 1 4 1 0 85 2 74 1 3 0 0 6 1 0 02 1 1 4 1 1 8 1 0 5 5 2 74 1 1 1 0 1 0 3 5 2 7 1 1 1 1 0 0 1 1 2 1 1 1 0 1 1 1 1 0 1 1 1 1 1 0 1 1 1 1 1 0 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1							
Eb 1986 -0.01 0.4871 -0.99 0.38; 2.56] Guan 2009 -0.47 0.2845 -0.62 0.36; 1.09] Liva 2005 -0.24 0.4498 -0.78 0.033; 1.90] Liva 2003 1.15 0.6119 -0.62 0.38; 1.03] Mustapic 2012 -0.63 0.2456 -0.64 0.006 0.002; 0.18] Xie 2011 1.47 0.8126 -4.33 0.88; 21.30] Mustapic 2012 0.63 0.2456 -0.64 0.006 0.002; 0.18] Xantos 2002 -2.74 1.5893 -0.06 0.000; 1.46] Kamboh 1995 0.48 0.2713 -0.06 0.000; 1.46] Kamboh 1995 0.48 0.2713 -0.06 0.000; 1.46] Morbis Trabut 2006 -0.18 0.2464 -0.83 0.51; 1.35] Eto 1995 0.43 0.2760 -1.54 0.090 0.56; 4.00] Zhang 2003 0.70 0.4659 -0.01 0.81; 5.02] Guangda 1999 0.40 0.5038 -1.49 0.56; 4.00] Zhang 2003 0.46 0.5188 -0.53 0.19; 1.46] Sun 2013 -0.09 0.3672 -0.92 0.45; 1.88] Hua 2006 -0.46 0.6488 -0.53 0.19; 1.46] Sun 2013 -0.09 0.3672 -0.92 0.45; 1.35] Shen 2002 -0.67 0.5016 -0.51 1.09; 1.37] Zheng 1998 0.11 0.4712 -0.11 11 0.44; 2.80] Hua 2004 -0.15 0.3878 -0.86 0.04; 0.53 Chan 2002 -0.67 0.5016 -0.51 1.09; 1.37] Zheng 1998 0.11 0.4712 -0.11 0.15; 3.63] Chen 2002 -0.67 0.5016 -0.51 1.09; 1.37] Zheng 1998 0.11 0.4712 -0.11 0.15; 3.63] Chen 2002 -0.67 0.5016 -0.51 1.09; 1.37] Zheng 1998 0.11 0.4712 -0.11 11 0.44; 2.80] Hua 2004 1.19 0.678 -3.28 0.86; 1.04; 2.25] Chen 2002 -0.67 0.5016 -0.51 1.09; 1.37] Zheng 1998 0.11 0.4712 -0.11 11 0.44; 2.80] Hua 2004 1.19 0.678 -3.28 0.86; 1.24] -2.41 Xiang 1995 0.67 0.5596 -1.56 0.48; 5.07] Shen 2002 2.65 0.7347 -1.41 1.10 0.45; 5.363] Xiang 2005 0.000 0.4804 -1.10 0.39; 2.56] Long 1999 0.85 0.3999 -2.34 11.07; 5.12] Gu 2004 0.17 0.4821 -0.51 0.05; 1.03] Gu 2004 0.17 0.4821 -0.51 0.05; 1.70 Qui 2008 -0.47 0.3882 -0.62 0.94 10.27; 3.07] Tang 2007 -1.46 1.1496 -0.51 0.05; 1.03] Gu 2007 -1.46 1.1496 -0.51 0.05; 1.03] Gu 2007 -1.46 1.1496 -0.51 0.05; 1.13] Zhang 2007 -0.67 1.180 -0.51 0.05; 1.13] Zhang 2007 -0.67 1.180 -0.51 0.57] Qui 2008 -0.47 0.3882 -0.62 0.94 0.59 0.63; 1.03] Gu 2007 -1.46 1.1496 -0.51 0.51 0.55; 7] Qui 2008 -0.47 0.3882 -0.62 0.94 0.59 0.63; 1.28] Zhang 2007 -0.67 1.180 -0.51 0.57] Zhang 2007 -0.67							
Guan 2009 -0.47 0.2845 0.62 [0.36] 1.90 Leiva 2005 -0.24 0.4498 0.78 [0.33] 1.90 Liu 2003 1.15 0.6119 0.78 [0.33] 1.90 Mustapic 2012 0.63 0.2456 1.88 [1.16] 3.05 Santos 2002 -2.74 1.5893 0.06 [0.00] 1.46 Mastapic 2012 0.63 0.2456 1.88 [1.16] 3.05 Santos 2002 -2.74 1.5893 0.06 [0.00] 1.46 My 2006 -0.18 0.2464 0.83 [0.51] 1.35 Brobits Trabut 2006 -0.46 50 1.49 [0.66] 4.00 Zhang 2003 0.70 0.4659 1.49 [0.66] 4.00 Zhang 2003 -0.64 0.518 0.53 [0.18] 2.25] Gua 2003 -0.64 0.6488 0.63 [0.18] 2.25] Gua 2017 -0.79 0.6220 0.45 [0.13] 1.53] Shen 2002 -0.67 0.516							
Leiva 2005 -0.24 0.4498 -0.78 [0.33; 1.90] Liu 2003 1.15 0.6119 -0.78 [0.33; 1.90] Mustapic 2012 0.63 0.2456 -0.06 [0.02; 0.18] Xie 2011 1 1.47 0.8126 -0.83 [0.48] Mustapic 2012 0.63 0.2456 -0.06 [0.00; 1.46] Kamboh 1995 0.48 0.2713 -0.06 [0.00; 1.46] Kamboh 1995 0.48 0.2713 -0.06 [0.00; 1.46] Morbois Trabut 2006 -0.18 0.2464 -0.83 [0.51; 1.35] Eto 1995 0.48 0.2713 -0.06 [0.00; 1.46] Morbois Trabut 2006 -0.11 0.2382 -0.90 [0.56; 1.43] Powel 2003 0.70 0.4659 -2.74 [0.81; 5.02] Guangda 1999 0.40 0.5038 -1.49 [0.56; 4.40] Zhang 2003 0.64 0.5188 -0.53 [0.19; 1.46] Sun 2013 -0.09 0.3672 -0.92 [0.45; 1.88] Hua 2006 -0.46 0.6488 -0.63 [0.18; 2.25] Guo 2003 0.30 0.7205 -1.36 [0.33; 5.57] Liang 2017 -0.79 0.6220 -0.45 [0.13] 1.53] Shen 2002 -0.67 0.5016 -0.511 [0.19; 1.37] Zheng 1998 0.41 0.4712 -1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 -3.28 [0.87; 12.34] Xiang 1995 0.67 0.5930 -1.56 [0.48; 5.07] Xiang 1999 0.45 0.5996 -1.41 [0.13; 1.53] Shen 2002 2.66 0.7347 -1.42 [1.37] Xiang 1999 0.45 0.5996 -1.56 [0.48; 5.07] Xiang 2005 0.00 0.4804 -1.00 [0.39; 2.56] Long 1999 0.45 0.5996 -1.56 [0.48; 5.07] Xiang 2005 0.05 0.35 0.4807 -1.41 [0.51; 2.60] Zhang 2005 0.05 0.35 0.4807 -1.41 [0.51; 2.60] Xiang 2005 0.05 0.4807 -1.41 [0.51; 2.60] Xiang 2005 0.05 0.4807 -1.41 [0.51; 2.60] Xiang 2005 0.06 0.4882 -0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 -1.19 [0.46; 3.05] Yang 1995 0.67 1.528 -2.66 [0.71; 9.46] Xiang 2005 0.06 0.4804 -1.00 [0.39; 2.56] Long 1999 0.85 0.3999 -2.34 [1.07; 5.12] Liang 2005 0.06 0.4821 -0.94 [0.42; 2.10] Xiang 2005 0.06 0.4821 -0.94 [0.42; 2.10] Xiang 2007 0.467 1.480 -1.55 [0.61; 1.79] Xiang 2007 0.4801 -1.41 [0.46; 2.20] Che 2006 0.71 0.9462 -2.04 [0.32; 1.30] Zhang 2007 0.6774 -0.44 [0.21; 2.81] Xiang 2007 0.69 [0.31; 2.85] Liu 2016 0.71 0.9462 -2.04 [0.32; 1.30] Zhang 2007 0.69 [0.31; 2.81] Xiang 2007 0.69 [0.31; 2.81] Xiang 2007 0.69 [0.31; 2.81] Xiang 2007 0.69 [0.31; 2.81] Xiang 2007 0.69 [0.34] Xiang 2007 0.69 [0.374 -0.44 [0.21; 2.81] Xiang 2002 0.073 0.7347							
Liu 2003 1.15 0.6119 3.14 [0.92; 10.43] Mehmet 2015 2.75 0.5264 0.06 [0.92; 0.18] Mustapic 2012 0.63 0.2456 4.188 [1.6; 3.05] Santos 2002 2.74 1.5893 0.06 [0.00; 1.46] Kamboh 1995 0.48 0.2713 1.161 [0.95; 2.74] Ng 2006 0.18 0.2464 0.83 [0.51; 1.35] Eto 1995 0.43 0.2760 1.57 [0.47; 5.25] Morbois Trabut 2006 0.11 0.2382 0.90 [0.56; 1.43] Powell 2003 0.70 0.4659 2.201 [0.81; 5.02] Mustapic 2012 0.66 0.5038 1.49 [0.56; 4.00] Zhang 2000 0.45 0.6170 1.57 [0.47; 5.25] Zhang 2003 0.64 0.5188 0.53 [0.19; 1.46] Sun 2013 0.09 0.3672 0.92 [0.45; 1.88] Hua 2006 0.46 0.6488 0.63 [0.18; 2.25] Guo 2003 0.30 0.7205 1.36 [0.33; 5.57] Liang 2017 0.79 0.6220 0.45 [0.33; 5.57] Liang 2017 0.79 0.6220 0.45 [0.33; 5.57] Liang 2017 0.79 0.6220 0.45 [0.13] 1.53] Shen 2002 0.67 0.5016 0.518 0.65 [0.45] [0.44; 1.88] Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1995 0.67 0.5930 1.94 [0.44; 2.60] Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1999 0.45 0.5996 1.142 [0.44; 2.60] Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1999 0.45 0.5996 1.15 [0.44; 1.50] Shen 2002 2.65 0.7347 1.42 [1.37; 59.97] Xiang 2005 0.00 0.4804 1.10 [0.49; 2.56] Liang 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.42 [1.41] [0.46; 3.05] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Liang 2013 0.14 0.4140 1.15 [0.51; 2.60] Yang 1999 0.45 0.5996 2.24 [1.07; 5.12] Liang 2005 0.00 0.4804 1.00 [0.39; 2.56] Liang 2007 0.67 1.180 0.51 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Yang 2013 0.01 0.5749 0.99 [0.32; 1.301] Zhang 2007 0.08 1.2474 0.44 [0.13; 1.55] Zhang 2007 0.06 [0.31; 2.95] Liang 2007 0.08 1.2474 0.44 [0.23; 2.81] Yang 2010 0.00 0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 2.53 0.7347 0.08 [0.02; 0.34] Random effec							
Mehmet 2015 2.75 0.5264 0.06 [0.02] 0.18] Xie 2011 1.47 0.8126 4.33 [0.08] 21.30] Mustapic 2012 0.63 0.2456 1.68 [1.16] 3.05] Santos 2002 -2.74 1.5893 0.06 [0.00] 1.46] Kamboh 1995 0.48 0.2713 1.61 [0.95] 2.74] Ng 2006 -0.18 0.2464 0.83 [0.51] 1.35] Eto 1995 0.43 0.2760 1.57 [0.66] 4.00] Guangda 1999 0.40 0.5038 2.01 [0.81] 5.02] Zhang 2003 -0.64 0.5188 0.53 [0.19] 1.46] Sun 2013 -0.09 0.3672 0.53 [0.18] 1.53] Gua 2003 0.30 0.7205 1.36 [0.33] 5.57] Liang 2017 -0.79 0.622 0.45 [0.18] 1.61 0.45 [0.7] 1.56]							
Xie 2011 1.47 0.8126 4.33 [0.88; 21.30] Mustapic 2012 0.63 0.2456 1.88 [1.16; 3.05] Santos 2002 -274 1.5893 0.06 [0.00; 1.46] Kamboh 1995 0.48 0.2713 1.61 [0.95; 2.74] Ng 2006 -0.18 0.2464 0.83 [0.55; 1.43] Powell 2003 0.70 0.4659 2.01 [0.81; 5.02] Quanda 1999 0.46 0.5038 1.49 [0.56; 4.00] Zhang 2000 0.46 0.5188 0.53 [0.19; 1.46] Sun 2013 -0.09 0.3672 0.92 [0.45; 1.88] Hua 2006 -0.46 0.6488 0.63 [0.18; 2.25] Guo 2003 0.30 0.700 5.20 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 1.36 [0.33; 5.57] Liang 1998 0.11 0.4712 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 3.28 [0.87; 12.24] Xiang 1995 0.67 0.5930 1.95 [0.61; 6.23] Chen 2006 -0.45 0.5996 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 1999 0.45 0.5996 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 1999				_			
Mustapic 2012 0.63 0.2466 1.88 [1.16, 3.05] Santos 2002 -2.74 1.5893 0.06 [0.00, 1.46] Kamboh 1995 0.48 0.2760 1.54 [0.95; 2.74] Ng 2006 -0.18 0.2464 0.83 [0.51; 1.35] Eto 1995 0.43 0.2760 1.54 [0.90; 2.65] Morbois Trabut 2006 -0.11 0.2382 0.90 [0.56; 1.43] Powel 2003 0.70 0.4659 1.49 [0.56; 4.00] Chang 2000 0.45 0.6170 1.57 [0.47; 5.25] Zhang 2003 -0.40 0.5188 0.53 [0.19; 1.46] Sun 2013 -0.09 0.6220 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 0.51 [0.19; 1.37] Zhang 2017 -0.79 0.6220 0.45 [0.48; 5.07] Shen 2002 -0.67 0.530 1.95 [0.61; 6.23] Chan 2006 -0.45 0.5986 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.41 [0.55; 6.6]				-			
Santos 2002 2.74 1.5893 0.06 0.00, 1.46j Kamboh 1995 0.48 0.2713 1.61 1.095, 2.74j Ng 2006 -0.18 0.2464 0.83 10.51; 1.35j Eto 1995 0.43 0.2760 1.54 0.90; 0.265j Morbois Trabut 2006 -0.11 0.2322 9.90 10.056; 1.43j Powell 2003 0.70 0.4659 1.57 10.47; 5.25j Guangda 1999 0.40 0.5038 1.49 10.56; 4.00j Zhang 2003 -0.64 0.6488 0.63 10.18; 2.25j Guo 2003 0.30 0.700 1.46i 1.35 j Shen 2002 -0.67 0.5016 0.45 10.13; 1.53j Shen 2002 -0.67 0.5016 0.51 10.19; 1.37j Hua 2004 1.19 0.6758 3.28 10.87; 12.34j Xiang 1995 0.67 0.5930 1.56 1.44i 1.56 1.61 Kiang 1999 0.45 0.5996 1.56 1.45 3.75; 59.97j Xiang 2005 0.00 0.4807 1.41							
Kamboh 1995 0.48 0.2713 1.61 [0.95; 2.74] Ng 2006 -0.18 0.2464 0.83 [0.51; 1.35] Eto 1995 0.43 0.2760 1.54 [0.90; 2.65] Morbois Trabut 2006 -0.11 0.2382 0.90 [0.56; 1.43] Powell 2003 0.70 0.4659 2.01 [0.81; 5.02] Guangda 1999 0.40 0.5038 - 1.49 [0.56; 4.00] Zhang 2000 0.45 0.6170 1.57 [0.47; 5.25] Zhang 2003 -0.64 0.5188 0.53 [0.18; 2.25] Guo 2003 0.30 0.705 1.36 [0.33; 5.57] Liang 2017 -0.79 0.6220 - 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 - 0.51 [0.19; 1.37] Zheng 1998 0.11 0.4712 - 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 3.28 [0.61; 6.23] Chen 2006 -0.51 0.3878 - 0.86 [0.40; 1.83] Xiang 1999 0.45 <td>Mustapic 2012</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Mustapic 2012						
Ng 2006 -0.18 0.2464 - 0.83 [0.51; 1.35] Eto 1995 0.43 0.2760 - 1.54 [0.90; 2.65] Morbois Trabut 2006 0.11 0.2382 - 0.90 [0.56; 4.00] Chang 2000 0.45 0.6170 - 1.97 [0.47; 5.25] Zhang 2000 0.45 0.6170 - 1.97 [0.47; 5.25] Zhang 2006 -0.46 0.6488 - 0.63 [0.18; 2.25] Guo 2003 0.30 0.700 6.6220 - 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 - 0.51 [0.19; 1.37] Zheng 1998 0.11 0.4712 - 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 328 [0.87; 12.34] Xiang 1995 0.67 0.5930 - 1.56 [0.46; 5.07] Shen 2002 2.65 0.7347 - 1.42 [3.37; 59.97] Xiang 1999 0.45 0.5996 - 1.56 [0.61; 6.23] Chen 2005 0.35 <td>Santos 2002</td> <td></td> <td></td> <td></td> <td>0.06</td> <td></td> <td></td>	Santos 2002				0.06		
Eio 1995 0.43 0.2760 - 1.54 [0.90; 2.65] Morbois Trabut 2006 0.11 0.2382 0.90 [0.56; 1.43] Powell 2003 0.70 0.4659 - 1.49 [0.56; 4.00] Chang 2000 0.45 0.6170 - 1.57 [0.47; 5.25] Dhang 2003 -0.64 0.5188 - 0.92 [0.45; 1.88] Hua 2006 -0.46 0.6488 0.63 [0.13; 2.25] Guo 2003 0.30 0.7205 - 1.36 [0.33; 557] Liang 2017 -0.79 0.6220 - 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 - 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 - 3.28 [0.87; 12.34] Xiang 1995 0.67 0.5930 - 1.95 [0.61; 6.23] Chen 2006 -0.15 0.3878 - 0.86 [0.40; 1.83] Xiang 1999 0.45 0.5996 - - 1.42 [3.37; 59.97] Xiang 2005 0.00 0.4804 - 1.00 [0.39; 2.56] Long 1.83 Long 1999 0.85 0.3999 - 2.34	Kamboh 1995				1.61	[0.95; 2.74]	
Morbois Trabut 2006 -0.11 0.2382 -0.90 [0.56; 1.43] Powell 2003 0.70 0.4659 -2.01 [0.81; 5.02] Guangda 1999 0.40 0.5038 -1.14 9.056; 4.00] Zhang 2000 0.45 0.6170 -1.57 [0.47; 5.25] Zhang 2003 0.64 0.5188 -1.092 [0.45; 1.88] Hua 2006 -0.46 0.6488 -1.092 [0.45; 1.88] Hua 2006 -0.46 0.6488 -1.013 1.53 Shen 2002 -0.67 0.5016 -1.11 [0.14; 2.80] Hua 2004 1.19 0.6758 328 [0.87; 12.34] Xiang 1995 0.67 0.5930 -1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 1999 0.45 0.5996 -1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.399 2.34 [1.07; 5.12] <	Ng 2006	-0.18 (0.2464		0.83	[0.51; 1.35]	
Morbois Trabut 2006 -0.11 0.2382 -0.90 [0.56; 1.43] Powell 2003 0.70 0.4659 -2.01 [0.81; 5.02] Guangda 1999 0.40 0.5038 -1.14 9.056; 4.00] Zhang 2000 0.45 0.6170 -1.57 [0.47; 5.25] Zhang 2003 0.64 0.5188 -1.092 [0.45; 1.88] Hua 2006 -0.46 0.6488 -1.092 [0.45; 1.88] Hua 2006 -0.46 0.6488 -1.013 1.53 Shen 2002 -0.67 0.5016 -1.11 [0.14; 2.80] Hua 2004 1.19 0.6758 328 [0.87; 12.34] Xiang 1995 0.67 0.5930 -1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 1999 0.45 0.5996 -1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.399 2.34 [1.07; 5.12] <	Eto 1995				1.54	[0.90; 2.65]	
Powell 2003 0.70 0.4659 2.01 [0.81; 5.02] Guangda 1999 0.40 0.5038 1.49 [0.56; 4.00] Zhang 2000 0.45 0.6170 1.57 [0.47; 5.25] Zhang 2003 -0.64 0.5188 0.53 [0.19; 1.46] Sun 2013 -0.09 0.3672 0.92 [0.45; 1.88] Hua 2006 -0.46 0.6488 0.63 [0.18; 2.25] Guo 2003 0.30 0.700 5 1.36 [0.33; 5.57] Liang 2017 -0.79 0.6220 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 0.51 [0.19; 1.37] Theg 1998 0.11 0.4712 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1995 0.67 0.5996 1.56 [0.44; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiang 2005 0.00 0.4804 -1.01 [0.55; 3.63] Xiang 2005 0.00 0.4804 -1.01 [0.55; 5.7] <tr< td=""><td>Morbois Trabut 2006</td><td>-0.11 (</td><td>0.2382</td><td></td><td>0.90</td><td>[0.56; 1.43]</td><td></td></tr<>	Morbois Trabut 2006	-0.11 (0.2382		0.90	[0.56; 1.43]	
Guangda 1999 0.40 0.5038 1.49 [0.56]; 4.00] Zhang 2000 0.45 0.6170 1.57 [0.47]; 5.25] Zhang 2003 -0.64 0.5188 0.53 [0.19]; 1.46] Sun 2013 -0.09 0.3672 0.92 [0.45]; 1.88] Hua 2006 -0.46 0.6488 0.63 [0.13]; 2.25] Guangda 1998 0.11 0.4712 0.445 [0.13]; 1.53] Shen 2002 -0.67 0.5016 0.51 [0.13]; 1.37] Zheng 1998 0.11 0.4712 1.11 [0.44]; 2.80] Hua 2004 1.19 0.6758 3.28 [0.87]; 1.234] Xiang 1995 0.67 0.5930 1.95 [0.61]; 6.23] Chen 2006 -0.15 0.3878 0.86 [0.40]; 1.83] Xiang 1999 0.45 0.5996 1.56 [0.40]; 1.83] Xiang 2005 0.00 0.4804 1.00 [0.39]; 2.56] Long 199 0.85 0.590	Powell 2003	0.70 (0.4659		2.01		
Zhang 2000 0.45 0.6170 1.57 [0.47; 5.25] Zhang 2003 -0.64 0.5188 0.53 [0.19; 1.46] Sun 2013 -0.09 0.3672 0.92 [0.45; 1.88] Hua 2006 -0.46 0.6488 0.63 [0.18; 2.25] Guo 2003 0.30 0.7205 1.36 [0.33; 5.57] Liang 2017 -0.79 0.6220 0.45 1.51 Shen 2002 -0.67 0.5016 0.51 [0.19; 1.37] Zheng 1998 0.11 0.4712 1.11 [0.44; 2.80] Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1995 0.67 0.5930 1.95 [0.61; 6.23] Chen 2006 -0.15 0.3878 -0.86 [0.40; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Stiang 1999 0.45 0.5996 -1.56 [0.48; 5.07] Stang 2005 0.00 0.4804 -1.01 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] <	Guangda 1999	0.40 (0.5038		1.49		
Zhang 2003 -0.64 0.5188							
Sun 2013 -0.09 0.3672 -0.63 [0.45] 1.88] Hua 2006 -0.46 0.6488 -0.63 [0.18] 2.25] Guo 2003 0.30 0.7205 -0.45 [0.13] 1.53] Shen 2002 -0.67 0.5016 -0.45 [0.13] 1.53] Shen 2002 -0.67 0.5016 -0.51 [0.19] 1.37] Zheng 1998 0.11 0.4712 -0.45 [0.87] 1.234] Kiang 1995 0.67 0.5930 -1.95 [0.61] 6.23] Chen 2006 -0.15 0.3878 -0.86 [0.40] 1.83] Xiang 1999 0.45 0.5996 -1.56 [0.48] 507] Shen 2002 2.66 0.7347 -1.41 [0.55] 3.63] Xiang 2005 0.00 0.4804 -1.15 [0.51] 2.60] Long 1999 0.85 0.3999 -2.34 [1.07] 5.12] Liang 2005 -0.06 0.4082 -0.94 [0.42] 2.10] Gu 2004 0.17 0.4821							
Hua 2006 -0.46 0.6488 - 0.63 [0.18; 2.25] Guo 2003 0.30 0.7205 - 1.36 [0.33; 5.57] Liang 2017 -0.79 0.6220 - 0.45 [0.13; 1.53] Shen 2002 -0.67 0.5016 - 0.45 [0.13; 1.53] Zheng 1998 0.11 0.4712 - 1.11 [0.44; 2.80] Hua 2004 1.19 0.67 0.5930 - 1.95 [0.61; 6.23] Chen 2006 -0.15 0.3878 - 0.86 [0.40; 1.83] Xiang 1999 0.45 0.5996 - 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 - 1.421 [3.37; 59.97] Xiang 2005 0.00 0.4804 - 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 - 2.34 [1.07; 5.12] Liang 2005 0.06 0.4802 - 0.04 [0.42; 2.10] Gu 2004 0.17 0.4821 - 1.19 [0.46; 3.05] Yang 1995 0.95							
Guo 2003 0.30 0.7205 1.36 [0.33] 5.57] Liang 2017 -0.79 0.6220 0.45 [0.13] 1.53] Shen 2002 -0.67 0.5016 0.51 [0.19] 1.37] Zheng 1998 0.11 0.4712 1.11 [0.44] 2.80] Hua 2004 1.19 0.6758 3.28 [0.87] 1.234] Xiang 1995 0.67 0.5930 1.95 [0.61] 6.23] Chen 2006 -0.15 0.3878 0.86 [0.40] 1.83] Xiang 1999 0.45 0.5996 1.56 [0.48] 5.07] Shen 2002 2.65 0.7347 1.421 [3.37] 59.97] Xiong 2013 0.14 0.4140 1.15 [0.51] 2.60] Zhong 2005 0.00 0.4804 1.00 [0.39] 2.56] Long 1999 0.85 0.3999 2.34 [1.07] 5.12] Liang 2005 0.06 0.4082 0.44 0.42 2.10] Guo 2004 0.17 0.4821 0.4							
Liang 2017 -0.79 0.6220							
Shen 2002 -0.67 0.5016							
Zheng 1998 0.11 0.4712 1.11 [0.44]; 2.80] Hua 2004 1.19 0.6758 3.28 [0.87]; 12.34] Xiang 1995 0.67 0.5930 1.95 [0.61]; 6.23] Chen 2006 -0.15 0.3878 0.86 [0.40]; 1.83] Xiang 1999 0.45 0.5996 1.56 [0.48]; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37]; 59.97] Xiong 2013 0.14 0.4140 1.15 [0.51]; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55]; 3.63] Xiang 1999 0.85 0.3999 2.34 [1.07]; 5.12] Liang 2005 0.00 0.4804 1.00 [0.39]; 2.56] Long 1999 0.85 0.3999 2.34 [1.07]; 5.12] Liang 2005 0.06 0.4082 0.94 [0.42]; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46]; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71]; 9.46] Guo 2007 -1.46 1.1496 0.23 [0.02]; 2.22]							
Hua 2004 1.19 0.6758 3.28 [0.87; 12.34] Xiang 1995 0.67 0.5930 1.95 [0.61; 6.23] Chen 2006 -0.15 0.3878 0.86 [0.40; 1.83] Xiang 1999 0.45 0.5996 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 1.421 [3.37; 59.97] Xiong 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tag 2007 -0.67 1.1800 0.81 [0.21; 3.07] Gua 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 0.59 [0.32; 13.01] Zhang 2007 0.89 1.2478 0.44 [0.21; 28.12] Wang 2014 -0.							
Xiang 1995 0.67 0.5930 1.95 [0.61; 6.23] Chen 2006 -0.15 0.3878 0.86 [0.40; 1.83] Xiang 1999 0.45 0.5996 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 14.21 [3.37; 59.97] Xiong 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.5							
Chen 2006 -0.15 0.3878 0.86 [0.40]; 1.83] Xiang 1999 0.45 0.5996 1.56 [0.48]; 5.07] Shen 2002 2.65 0.7347 14.21 [3.37]; 59.97] Xiang 2013 0.14 0.4140 1.15 [0.51]; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55]; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39]; 2.56] Long 1999 0.85 0.3999 2.34 [1.07]; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42]; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46]; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71]; 9.46] Rong 2013 -0.22 0.6819 0.51 [0.05]; 5.17] Qiu 2008 -0.47 0.3882 0.54 0.2890 0.59 [0.31]; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32]; 1.03] [0.61]; 1.79]							
Xiang 1999 0.45 0.5996 1.56 [0.48; 5.07] Shen 2002 2.65 0.7347 14.21 [3.37; 59.97] Xiong 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 9.44 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Gu 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.31; 2.95] Luo 2016 0.71 0.9462<							
Shen 2002 2.65 0.7347 14.21 (3.37; 59.97) Xiong 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4821 9.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12]				and the second sec			
Xiong 2013 0.14 0.4140 1.15 [0.51; 2.60] Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2007 0.89 1.2478 2.04 [0.32; 13.01] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] <	-						
Zhou 2005 0.35 0.4807 1.41 [0.55; 3.63] Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>							
Xiang 2005 0.00 0.4804 1.00 [0.39; 2.56] Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] <							
Long 1999 0.85 0.3999 2.34 [1.07; 5.12] Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42]							
Liang 2005 -0.06 0.4082 0.94 [0.42; 2.10] Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51]							
Gu 2004 0.17 0.4821 1.19 [0.46; 3.05] Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] <	Long 1999						
Yang 1995 0.95 0.6595 2.60 [0.71; 9.46] Rong 2013 -0.22 0.6819 0.81 [0.21; 3.07] Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.31; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34]				-			
Rong 2013 -0.22 0.6819							
Tang 2007 -0.67 1.1800 0.51 [0.05; 5.17] Qiu 2008 -0.47 0.3882 0.62 [0.29; 1.33] Guo 2007 -1.46 1.1496 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Qiu 2008 -0.47 0.3882	-						
Guo 2007 -1.46 1.1496 0.23 [0.02; 2.22] Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model	<u> </u>						
Xiong 2008 -0.54 0.2890 0.59 [0.33; 1.03] Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10							
Ge 2013 0.05 0.2737 1.05 [0.61; 1.79] Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	Guo 2007						
Xiang 2010 -0.04 0.5718 0.96 [0.31; 2.95] Luo 2016 0.71 0.9462 2.04 [0.32; 13.01] Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model	Xiong 2008				0.59		
Luo 2016 0.71 0.9462	Ge 2013	0.05 (0.2737				
Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	Xiang 2010	-0.04 (0.5718		0.96	[0.31; 2.95]	
Zhang 2007 0.89 1.2478 2.44 [0.21; 28.12] Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	Luo 2016	0.71 (0.9462		2.04	[0.32; 13.01]	
Wang 2014 -0.72 0.6774 0.48 [0.13; 1.83] Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	Zhang 2007						
Zhang 2002 -0.53 0.7207 0.59 [0.14; 2.42] Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	Wang 2014						
Xiong 2005 0.27 0.7341 1.31 [0.31; 5.51] Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model 1.05 [0.86; 1.28] 10	0						
Dai 2000 -0.01 0.5749 0.99 [0.32; 3.07] Filled: Shen 2002 -2.53 0.7347 0.08 [0.02; 0.34] Random effects model • 1.05 [0.86; 1.28] 10							
Filled: Shen 2002 -2.53 0.7347 Image: constraint of the second sec							
Random effects model 1.05 [0.86; 1.28] 10				T			
	THEU. OHEIT 2002	-2.00 (0.1041		0.00	[0.02, 0.34]	
Heterogeneity: $I^2 = 58\%$, $\tau^2 = 0.2979$, $p < 0.01$			0 0 0 1		1.05	[0.86; 1.28]	100

	Ever	Control				
Study	Experimental Events Total	Control Events Total	Odds Ratio	OR	95%-CI	Weight
Singh 2006	2 80	0 74		1 7F	10 22 400 401	0.49/
Singh 2006 Al-Majed 2011	2 80 2 75				[0.22; 100.48] [0.11; 14.30]	0.4% 1.0%
Chaudhary 2012	1 118				[0.12; 71.88]	0.4%
Errera 2006	2 70				[0.27; 119.89]	0.4%
Alharbi 2014	13 303		- 	1.36	[0.60; 3.08]	8.2%
Inamdar 2000	3 20			0.88	[0.13; 6.22]	1.8%
Kwon 2007	3 66				[0.39; 153.39]	0.4%
Atta 2016 Vauhkonen 1997	12 24 3 51				[2.39; 41.84]	1.1%
Erdogan 2009	0 40			2.30	[0.38; 14.74]	1.2% 0.0%
Eto 1986	0 73			0.37	[0.01; 9.10]	1.2%
Guan 2009	7 148				[0.53; 36.11]	1.0%
Leiva 2005	4 137			0.87	[0.19; 3.99]	2.9%
Liu 2003	1 57			0.57	[0.05; 6.47]	1.5%
Mehmet 2015	0 81			• • • •	10.00 44.001	0.0%
Xie 2011 Mustania 2012	4 12 2 129			2.00		1.2%
Mustapic 2012 Santos 2002	0 32			0.11	[0.36; 18.53] [0.00; 2.85]	0.9% 1.8%
Kamboh 1995	5 67			1.62	[0.58; 4.50]	4.2%
Ng 2006	5 287			0.42	[0.13; 1.40]	6.5%
Eto 1995	1 193	4 418		0.54	[0.06; 4.86]	2.1%
Morbois Trabut 2006	1 144	14 308		0.15	[0.02; 1.13]	7.4%
Powell 2003	3 92			1.92		1.0%
Guangda 1999	1 67			0.40	[0.04; 4.55]	1.8%
Zhang 2000 Zhang 2003	0 50 1 56		·	0.16	[0.01; 3.17] [0.15; 39.65]	2.6% 0.5%
Sun 2013	0 180			0.10	[0.10; 39.05]	1.9%
Hua 2006	4 72			2.21		1.5%
Guo 2003	2 25				[0.29; 39.50]	0.6%
Liang 2017	1 32	6 273			[0.17; 12.32]	1.0%
Shen 2002	2 86			0.44	[0.08; 2.47]	3.4%
Zheng 1998	1 82				[0.07; 41.96]	0.5%
Hua 2004	2 26 0 174			3.75	[0.32; 43.50]	0.6% 0.0%
Liu 2014 Xiang 1995	0 174			0.16	[0.01; 4.11]	1.6%
Chen 2006	1 71	2 74		0.51	[0.05; 5.80]	1.6%
Xiang 1999	1 86			0.45	[0.03; 7.34]	1.1%
Shen 2002	2 6	4 35		3.88		0.6%
Xiong 2013	1 73			0.50	[0.04; 5.64]	1.6%
Zhou 2005	1 48			2.94		0.4%
Xiang 2005	1 66 3 39				[0.06; 16.33]	0.8%
Long 1999 Liang 2005	3 39 6 108			2.10	[0.45; 9.86] [0.39; 10.20]	1.7% 1.9%
Gu 2004	3 46				[0.38; 14.78]	1.2%
Yang 1995	0 78				[0.01; 4.11]	1.6%
Rong 2013	0 18					0.0%
Liu 2016	0 243					0.0%
Tang 2007	2 30				[0.27; 35.49]	0.6%
Qiu 2008	3 98			1.20		1.8%
Guo 2007 Xiong 2008	3 32 6 236			1.04	[0.27; 28.51] [0.37; 2.96]	0.8% 5.7%
Ge 2013	2 88			0.30		5.7%
Xiang 2010	1 29				[0.29; 187.61]	0.2%
Luo 2016	1 29			0.45	[0.04; 4.58]	2.0%
Zhang 2007	0 32			0.24		1.8%
Wang 2014	2 35			0.42	[0.07; 2.49]	3.3%
Zhang 2002 Xiong 2005	1 41			0.69	• • •	1.4%
Xiong 2005 Dai 2000	1 23 0 23				[0.06; 17.76] [0.04; 23.25]	0.8% 0.7%
	0 23	1 05		0.91	[0.04, 23.23]	0.170
Fixed effect model	4805	5961	\	1.15	[0.90; 1.46]	100.0%
Heterogeneity: $I^2 = 0\%$	$\tau^2 = 0, p = 0.56$	6				
			0.01 0.1 1 10 100			

Study Events Total Odds Ratio OR 99%-Cl Weight Singh 2006 5 83 13 87 0.36 0.12 1.07 1.5% AtMaied 2011 6 79 9 55 0.42 1.41 1.2% 0.36 0.12 1.2% 0.36 0.12 1.2% 0.36 0.12 1.2% 0.41 1.2% 0.59 0.2% 2.2% Ahani 2014 35 2.5% 0.03 0.7 1.2% 0.4% 1.38 0.7% 3.7.3 0.7% 0.7% 2.2% 0.4% 0.6% 0.44 1.08 0.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3% 0.7% 2.3%		Experimental	Control				
ALMaged 2011 6 79 9 55 0.42 0.41 1.26 1.2% Errera 2006 12 80 23 100 0.59 0.27 1.28 2.2% Alhabi 2014 35 325 60 394 0.67 0.43 1.05 2.2% Alhabi 2014 35 325 60 394 0.67 0.43 0.65 0.17 1.28 2.2% Alhabi 2016 9 21 9 39 2.50 0.80 3.01 1.2% Kwon 2007 14 77 12 82 1.20 0.66 3.01 1.2% Vaukhonen 1997 0 68 33 109 0.96 0.42 0.43 1.08 0.85 0.17 1.2% Cuava 2005 43 1.76 39 126 0.72 0.43 1.2% 0.85 1.2% 0.43 0.13 0.91 1.5% 1.2% 0.17 0.5% 1.2% 0.3% 0.41 1.2% 0.3% 0.44 1.2% 0.3% 0.44 1.2%<	Study	Events Total	Events Total	Odds Ratio	OR	95%-CI	Weight
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	<u> </u>						
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	-						
Ahari 2014 35 325 60 394 0.67 0.47 1.05 6.1% kwon 2007 14 77 12 82 1.18 0.37 3.73 0.7% Kwon 2007 14 77 12 82 1.18 0.67 0.473 0.78 Atta 2016 9 21 9 39 2.50 0.60 0.49 1.86 2.3% Erdogan 2009 12 52 7 35 1.20 0.42 3.43 0.8% Guan 2009 24 165 9 97 1.66 0.74 3.75 1.25 Leiva 2005 43 176 39 126 0.12 0.13 0.91 1.5% Kue 2011 19 27 5 13 0.4 1.02 10.44 1.63 4.4% Ng 2006 39 321 19 161 1.03 0.5% 1.2% Kamboh 1995 26 88 150 532 1.07 1.07 1.2% 1.6% 0.44 4.4% 1.02	· · · · · · · · · · · · · · · · · · ·					• • •	
hamdar 2000 16 33 8 18 118 037, 373 07% Kwon 2007 14 77 282 130 1056, 301 12% Atta 2016 9 21 9 39 096 098 0149, 186 2.3% Erdogan 2009 12 52 7 35 120 1042, 134 0.0% Clan 2009 24 165 9 97 166 10.70, 2.97 1.6% Guan 2009 24 165 9 97 126 0.72 1043; 120 4.3% Liu 2003 12 68 11 75 125 1051; 13% 44 102 1043; 120 4.3% Kie 2011 19 27 5 13 380 0.026; 1525 0.3% Mustapic 2012 3 157 76 404 102 1064; 1.63 4.4% Santos 2002 3 35 8 18 0.12 1065; 1.63 4.4% Santos 2002 33 176 87 381 0.12 10.76							
Atia 2016 9 21 9 39 250 0.80 7.82 0.5% Vauhkonen 1997 20 68 33 109 0.96 0.96 7.82 0.5% Erdogan 2009 12 52 7 35 1.20 10.42 3.43 0.8% Elo 1986 21 94 16 96 1.44 10.70 2.97 1.6% Guan 2009 24 165 9 97 1.66 10.74 3.75 1.2% Liu 2003 12 68 11 75 1.25 10.51 3.05 1.1% Mustapic 2012 30 157 76 404 1.01 10.03 1.53 4.4% Santos 2002 3 376 8 18 0.12 1.6% 1.85 2.8% Kamboh 1995 26 88 150 532 1.07 10.6% 1.75 3.8% Guangda 1999 73 7 60 0.08 1.22 5.6% Powell 2003 12 67 31							
Vaukonen 1997 20 68 33 109 0.96 120 10.42 1.86 2.3% Erdogan 2009 12 52 7 35 1.20 10.42 33 0.8% Guan 2009 24 165 9 97 1.66 10.74 3.75 1.2% Leiva 2005 43 176 39 126 0.27 10.43 1.35 1.1% Mehmel 2015 13 94 9 28 0.34 10.51 3.05 1.1% Mehmel 2012 30 157 76 404 1.02 10.65 1.52 0.3% Kanboh 1995 26 88 150 532 1.07 10.65 1.52 0.3% Kanboh 1995 26 88 150 532 1.07 10.65 1.52 2.4% Guangda 1995 77 73 760 0.80 10.27 2.43 0.9% Zhang 2000 6 66<	Kwon 2007						
Erdogan 2009 12 52 7 35 120 0.42; 3.43] 0.8% Eto 1986 21 94 16 96 1.44 107(2.297) 1.6% Guan 2009 24 165 9 97 1.6% 0.72; 20.43; 1.20] 4.3% Leiva 2005 43 176 39 126 0.72; 10.43; 1.20] 4.3% Mehmet 2015 13 94 9 28 0.34; 0.13; 0.91] 1.5% Kiz 2011 19 27 5 13 3.80 0.95; 1.52; 0.3% Mustapic 2012 30 157 76 404 1.02 10.20; 0.63; 1.85; 2.8% Kamboh 1995 26 88 150 532 1.07 10.65; 1.75; 3.8% Ng 2006 39 321 19 161 1.07 1.64; 1.53] 1.7% Guangda 1999 73 76 60 62 1.12 1.3% 1.5% Sun 2013 21 201 6 61 1.07 0.43; 1.59] 1.4% Sun 201				<u>+</u>			
Eto 1966 21 94 16 96 1.44 10.70 2.97 1.6% Guan 2009 24 165 9 97 1.6% 0.72 0.43 1.20 4.3% Leiva 2005 43 176 39 12 68 11 75 1.2% 0.43 1.20 4.3% Liva 2003 12 68 11 75 1.2% 0.34 0.13 0.91 1.5% Xie 2011 19 27 5 13 3.80 0.95 1.525 0.3% Mustapic 2012 30 157 76 404 1.02 0.66 1.55 2.57 1.3% Santos 2002 3 38 150 532 1.07 10.76 1.1% 2.8% Elo 1995 26 88 150 532 1.07 0.74 1.54 7.0% Motois Trabut 2006 33 176 87 381 0.77 0.8% 1.59 2.4% Guangd 1999 7 73 7 60 0.28 <							
Guan 2009 24 165 9 97 166 167 1,2% Leiva 2005 43 176 39 126 0,72 0,43 120 4,3% Lui 2003 12 68 11 75 1,5% 1,25 0,51;3,051 1,1% Mehmet 2015 13 94 9 28 0,33 0,13;0,911 1,5% Xie 2011 19 27 5 13 380 0,95;15,25 0,3% Mustapic 2012 30 157 76 404 102 0,06;1,151 3.8% Ng 2006 39 321 19 161 1,03 0,58;1,85; 2.8% Kamboh 1995 26 88 15 532 107 10,76;1,51,52 2.8% Powell 2003 27 116 21 78 0,80 0,27;2,43 0,9% Zhang 2003 12 67 31 165 0,94 0,45;1,971 1,9% Sun 2013 21 201 6 61 107 0,41;2,78 1,0% </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Leiva 2005 43 176 39 126							
Mehmet 2015 13 94 9 28	Leiva 2005	43 176	39 126				4.3%
Xie 2011 19 27 5 13 380 0.95; 15.25] 0.3% Mustapic 2012 30 157 76 404 1.02 1064; 1.63] 4.4% Santos 2002 3 35 8 18 0.12 10.03 0.53 1.2% Kamboh 1995 26 88 150 532 107 10.65; 1.75 3.8% Ng 2006 39 321 19 161 1.03 1058; 1.85 2.8% Eto 1995 55 247 111 525 1.07 10.74; 1.54 7.0% Guangda 1999 7 73 7 60 0.80 10.27; 2.43 0.9% Zhang 2003 12 67 31 165 0.94 10.45; 1.75; 1.0% Gua 2003 9 32 6 45 2.54 1.08; 0.67; 1.55; 1.0% Gua 2013 9 32 6 45 2.54 1.08; 0.67; 1.51; 1.0% Gua 2013 9 32 6 45 2.54 1.08; 0.7; 1.9% 1.0% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Mustapic 2012 30 157 76 404 1.02 0.64 1.63 4.4% Santos 2002 3 35 8 8 1.07 [0.05] 1.57 3.8% Ng 2006 39 321 19 161 1.03 [0.58] 1.85] 2.8% Elo 1995 55 247 111 525 1.07 [0.74] 1.54 7.0% Morbois Trabut 2006 33 176 87 381 0.82 [0.43] 1.59] 2.4% Guangda 1999 7 73 76 60 0.80 [0.27] 2.4% Guang 2003 12 67 31 165 0.80 [0.27] 1.3% Sun 2013 21 67 31 165 0.94 [0.45] 1.97] 1.9% Shang 2002 11 95 8 38 305 1.59 [0.65] 3.61 0.9% Shen 2002 11 95 <							
Santos 2002 3 35 8 18 0.12 0.03 0.53 1.2% Kamboh 1995 26 88 150 532 1.07 [0.65, 1.75] 3.8% Ng 2006 39 321 19 161 1.03 [0.58, 1.85] 2.8% Eto 1995 55 247 111 525 1.07 [0.74, 1.54] 7.0% Morbois Trabut 2006 33 176 87 381 0.78 [0.50, 1.22] 5.6% Powell 2003 27 116 21 78 0.86 [0.27, 2.43] 0.9% Zhang 2000 6 56 6 62 1.12 [0.34, 3.70] 0.6% Zhang 2003 12 67 31 165 0.94 [0.45, 1.97] 1.9% Guo 2003 9 32 6 45 2.54 [0.80, 10] 0.5% Liang 2017 7 38 38 305 1.59 [0.65, 3.86] 0.9% Shen 2002 11 92 6 51 1.002 [0.35, 2.94] <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>							
Kamboh 1995268815053210710.651.753.8%Ng 200639321191611.03[0.58]1.85]2.8%Morbois Trabut 200633176873810.78 $[0.50]$ 1.22]5.6%Powel 20032711621780.82 $[0.43]$ 1.59]2.4%Guangda 19997737600.80 $[0.27]$ 2.43]0.9%Zhang 20006566621.12 $[0.34]$ 3.70]0.6%Zhang 20031267311650.94 $[0.45]$ 1.97]1.9%Sun 2013212016611.07 $[0.41]$ 2.78]1.0%Hua 200620881388170 $[0.78]$ 3.67]1.3%Guo 20039326451.02 $[0.23]$ 2.94]0.9%Shen 2002119518920.54 $[0.24]$ 1.2]2.0%Zheng 199811926511.02 $[0.35]$ 2.94]0.9%Kiang 19952610464441.79 $[0.68]$ 4.73]0.8%Kiang 19992410964441.96 $[0.53]$ 2.83]1.5%Long 199912481213 $[0.63]$ 2.83]1.5%Long 200565315801.38 $[0.47$	•			ī			
Ng 2006 39 321 19 161 103 10.58: 1.85 2.8% Eto 1995 55 247 111 525 1.07 0.74 1.54 7.0% Morbois Trabut 2006 33 176 87 381 0.82 0.43 1.59 2.4% Guangda 1999 7 73 7 60 0.82 0.43 1.59 2.4% Guangda 1999 7 73 7 60 0.82 0.43 1.59 2.4% Guang 2003 12 67 31 165 0.94 0.45 1.97 1.9% Sun 2013 21 201 6 61 1.07 0.43 3.671 1.3% Guo 2003 9 32 6 45 2.54 0.80 0.77 1.3% Liang 2017 7 38 38 305 1.02 0.35 2.94 0.9% Shen 2002 11 92 651 1.02 0.35 2.94 0.9% Kiang							
Morbois Trabut 2006 33 176 87 381 0.78 [0.50; 1.22] 5.6% Powell 2003 27 116 21 78 0.82 [0.43; 1.59] 2.4% Guangda 1999 7 73 7 60 0.82 [0.43; 1.59] 2.4% Guangda 1999 7 73 7 60 0.82 [0.43; 1.59] 2.4% Sun 2013 21 67 31 165 0.94 [0.45; 1.97] 1.9% Sun 2013 21 201 6 61 1.07 [0.41; 2.78] 1.0% Hua 2006 20 88 13 88	Ng 2006				1.03	[0.58; 1.85]	2.8%
Powell 2003 27 116 21 78 0.82 $[0.43]$ $1.59]$ 2.4% Guangda 1999 7 73 7 60 0.80 $[0.27]$ 2.43] 0.9% Zhang 2003 12 67 31 165 0.94 $[0.43]$ 1.59] 0.24% Sun 2013 21 201 6 61 1.07 $[0.41]$ 2.78] 1.0% Guo 2003 9 32 6 45							
Guangda 199977737600.80 $[0.27, 2.43]$ 0.9%Zhang 20006566621.12 $[0.34, 3.70]$ 0.6%Zhang 20031267311650.94 $[0.45, 197]$ 1.9%Sun 2013212016611.07 $[0.41, 2.78]$ 1.0%Hua 2006208813881.70 $[0.78, 3.67]$ 1.3%Guo 20039326452.54 $[0.80, 8.07]$ 0.5%Liang 201777338383051.59 $[0.65, 3.86]$ 0.9%Shen 2002119518920.64 $[0.24, 121]$ 2.0%Zhang 199811926511.02 $[0.35, 2.94]$ 0.9%Hua 20044288530.94 $[0.26, 3.43]$ 0.6%Liu 201431205232952.11 $[1.19, 3.73]$ 2.0%Xiang 1995261046441.79 $[0.68, 4.73]$ 0.8%Chen 200687810820.82 $[0.31, 221]$ 1.1%Xiang 2005208515801.41 $[0.75, 2.66]$ 2.0%Xiang 2005208515801.33 $[0.63, 2.83]$ 1.5%Long 199912<							
Zhang 20006566621.12 $[0.34]$ $3.70]$ 0.6% Zhang 2003126731165 0.94 $[0.45]$ $1.97]$ 1.9% Sun 201321201661 1.07 $[0.41]$ $2.78]$ 1.0% Hua 200620881388 1.70 $[0.78]$ $3.67]$ 1.3% Guo 2003932645 2.54 $[0.86]$ $3.86]$ 0.9% Liang 201773838305 1.59 $[0.66]$ $3.86]$ 0.9% Shen 200211951892 0.54 $[0.24]$ $12]$ 2.0% Xiang 19981192651 1.02 $[0.35]$ $2.94]$ 0.9% Hua 20044288 53 0.94 $[0.26]$ $3.43]$ 0.6% Liu 20143120523295 2.11 $[1.98]$ $3.73]$ 2.0% Xiang 199526104644 1.79 $[0.68]$ $4.73]$ 0.8% Shen 20021418940 1.206 $[3.17]$ 6.53 0.1% Xiang 199924109644 1.90 0.54 0.2% Zhou 20056531157 0.53 $[0.18]$ 1.56 1.2% Zhou 2005 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Zhang 200312 67 31 165 0.94 $[0.45; 1.97]$ 1.97 Sun 201321201661 1.07 $[0.41; 2.78]$ 1.0% Hua 200620881388 1.70 $[0.78; 3.67]$ 1.3% Guo 2003932645 2.54 $[0.80; 8.07]$ 0.5% Liang 201773838 305 1.59 $[0.65; 3.86]$ 0.9% Shen 200211951892 0.54 $[0.24; 1.21]$ 2.0% Zheng 19981192651 0.54 $[0.24; 1.21]$ 2.0% Zhang 199526104644 -2.11 $[1.80; 5.56]$ 0.8% Liu 20143120523295 -2.11 $[1.80; 5.56]$ 0.8% Kiang 199526104644 -2.11 $[0.80; 5.56]$ 0.8% Chen 20068781082 $$	-						
Hua 20062088138817.0 $[0.78]$ $3.67]$ 1.3% Guo 20039326452.54 $[0.80]$ $8.07]$ 0.5% Liang 2017738383051.59 $[0.65]$ $3.86]$ 0.9% Shen 2002119518920.54 $[0.24]$ $1.21]$ 2.0% Zheng 199811926511.02 $[0.35]$ $2.94]$ 0.9% Hua 20044288530.94 $[0.26]$ $3.43]$ 0.6% Liu 201431205232952.11 $[1.98]$ $5.56]$ 0.8% Kiang 1995261046442.11 $[0.80]$ $5.56]$ 0.8% Chen 200687810820.94 1.206 $[3.17]$ $4.587]$ 0.2% Xiang 199924109644- 1.79 $[0.68]$ $4.73]$ 0.8% Xiang 200565311570.53 $[0.18]$ $1.56]$ 1.2% Xiang 200520851580-1.33 $[0.63]$ $2.83]$ 1.5% Long 1999124812113-2.83 1.5% Long 1999124812 1.33 0.63 $2.83]$ 1.5% Long 1999124812 1.33 0.63 $2.83]$ 1.5% Long 1999124812 1.3 <				<u> </u>			
Guo 2003 9 32 6 45					1.07		
Liang 2017 7 38 38 305 1.59 [0.65] 3.86] 0.9% Shen 2002 11 95 18 92 0.54 [0.24] 1.21 2.0% Zheng 1998 11 92 6 51 1.02 [0.35] 2.94] 0.9% Hua 2004 4 28 8 53 0.94 [0.26] 3.43] 0.6% Liu 2014 31 205 23 295 2.11 [1.19] 3.73] 2.0% Xiang 1995 26 104 6 44 - 2.11 [0.80] 5.56] 0.8% Chen 2006 8 78 10 82 - 0.82 [0.31] 2.21] 1.1% Xiang 1999 24 109 6 44 - 1.206 [3.17] 4.87 0.2% Xiong 2013 31 103 22 94 - 1.41 [0.75] 2.66 2.0% Xiang 2005 18 120 8 76 1.33 [0.63] 2.83]				+			
Shen 2002 11 95 18 92							
Zheng 199811926511.02 $[0.35]$ $[2.94]$ 0.9% Hua 20044288530.94 $[0.26]$ 3.43 0.6% Liu 20143120523295205211 $[1.19]$ 3.73 2.0% Xiang 199526104644211 $[0.80]$ 5.56 0.8% Chen 200687810820.82 $[0.31]$ 2.21 1.1% Xiang 1999241096441.79 $[0.68]$ 4.73 0.8% Shen 2002141894012.06 $[3.17]$ 45.87 0.2% Xiong 201331103229494141 $[0.75]$ 2.66 2.0% Zhou 200565311571.41 $[0.75]$ 2.66 2.0% Xiang 2005208515801.33 $[0.63]$ 2.83 1.5% Liang 2005181208761.38 $[0.47]$ 4.99 0.7% Yang 199526104543 4.53 4.53 4.53 1.2% 1.1% Gu 20047508761.38 $[0.47]$ 4.99 0.7% Yang 199526104543 4.53 4.53 4.53 1.1% Gu 20047508761.38 $[0.47]$ 4.99 0.7% Yang 201643286							
Liu 2014 31 205 23 295 211 [1.19] 3.73] 2.0% Xiang 1995 26 104 6 44 2.11 [0.80] 5.56] 0.8% Chen 2006 8 78 10 82 2.11 [0.80] 5.56] 0.8% Shen 2002 14 18 9 40 1.79 [0.68] 4.73] 0.8% Shen 2002 14 18 9 40 12.06 [3.17] 45.87] 0.2% Xiang 2013 31 103 22 94 12.06 [3.17] 45.87] 0.2% Xiang 2005 6 53 11 57 0.53 [0.18] 1.56] 1.2% Xiang 2005 20 85 15 80 1.33 [0.62] 3.64] 1.1% Liang 2005 18 120 8 76 1.38 [0.47] 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90] 7.11] 0.7% Kong 2013				<u> </u>			
Xiang 1995 26 104 6 44							
Chen 2006 8 78 10 82							
Xiang 1999 24 109 6 44 1.79 [0.68] 4.73] 0.8% Shen 2002 14 18 9 40 12.06 [3.17] 45.87] 0.2% Xiong 2013 31 103 22 94 1.41 [0.75] 2.66] 2.0% Zhou 2005 6 53 11 57 0.53 [0.18] 1.56] 1.2% Xiang 2005 20 85 15 80 1.33 [0.63] 2.83] 1.5% Long 1999 12 48 12 113 2.81 [1.16] 6.80] 0.7% Liang 2005 18 120 8 76 1.38 [0.47] 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90] 7.11] 0.7% Rong 2013 2 20 1 30							
Shen 2002 14 18 9 40 12.06 [3.17; 45.87] 0.2% Xiong 2013 31 103 22 94 1.41 [0.75; 2.66] 2.0% Zhou 2005 6 53 11 57 0.53 [0.18; 1.56] 1.2% Xiang 2005 20 85 15 80 1.33 [0.63; 2.83] 1.5% Long 1999 12 48 12 113 2.81 [1.16; 6.80] 0.7% Liang 2005 18 120 8 76 1.38 [0.47; 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90; 7.11] 0.7% King 2013 2 20 1 30 2.53 [0.90; 7.11] 0.7% Yang 1995 26 104 5 43 2.53 [0.90; 7.11] 0.7% Rong 2013 2 20 1 30							
Zhou 2005 6 53 11 57 0.53 [0.18] 1.56] 1.2% Xiang 2005 20 85 15 80 1.33 [0.63] 2.83] 1.5% Long 1999 12 48 12 113 2.81 [1.16] 6.80] 0.7% Liang 2005 18 120 8 76 1.38 [0.47] 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90] 7.11] 0.7% Rong 2013 2 20 1 30 3.22 [0.27] 38.15] 0.1% Liu 2016 43 286 23 297 2.11 [1.23] 3.60] 2.4% Tang 2007 10 38 13 56 1.18 [0.46] 3.06] 1.0% Qiu 2008 14 109 11 87 9.3 [0.29] 3.00] 0.7% Guo 2007 7 36 7 34 0.93 [0.29] 3.00] 0.7% Xiong 2008 4				· · · · ·			
Xiang 2005 20 85 15 80 1.33 [0.63] 2.83] 1.5% Long 1999 12 48 12 113 2.81 [1.16] 6.80] 0.7% Liang 2005 18 120 8 76 1.38 [0.47] 4.09] 0.7% Gu 2004 7 50 8 76 1.38 [0.47] 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90] 7.11] 0.7% Rong 2013 2 20 1 30 3.22 [0.27] 38.15] 0.1% Liu 2016 43 286 23 297 2.11 [1.23] 3.60] 2.4% Tang 2007 10 38 13 56 1.18 [0.46] 3.06] 1.0% Qiu 2008 14 109 11 87 0.93 [0.29] 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57] 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17] 2.96] 3.3%							
Long 1999 12 48 12 113							
Liang 2005 18 120 8 76 1.50 [0.62; 3.64] 1.1% Gu 2004 7 50 8 76 1.38 [0.47; 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90; 7.11] 0.7% Rong 2013 2 20 1 30 3.22 [0.27; 38.15] 0.1% Liu 2016 43 286 23 297 2.11 [1.23; 3.60] 2.4% Tang 2007 10 38 13 56 1.18 [0.46; 3.06] 1.0% Qiu 2008 14 109 11 87 1.02 [0.44; 2.37] 1.3% Guo 2007 7 36 7 34 0.93 [0.29; 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35; 2.43] 1.1%							
Gu 2004 7 50 8 76 1.38 [0.47; 4.09] 0.7% Yang 1995 26 104 5 43 2.53 [0.90; 7.11] 0.7% Rong 2013 2 20 1 30 3.22 [0.27; 38.15] 0.1% Liu 2016 43 286 23 297 2.11 [1.23; 3.60] 2.4% Tang 2007 10 38 13 56 1.18 [0.46; 3.06] 1.0% Qiu 2008 14 109 11 87 1.02 [0.44; 2.37] 1.3% Guo 2007 7 36 7 34 0.93 [0.29; 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 0.39 [0.07; 2.01] 0.7% <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Yang 1995 26 104 5 43							
Liu 2016 43 286 23 297 2.11 [1.23; 3.60] 2.4% Tang 2007 10 38 13 56 1.18 [0.46; 3.06] 1.0% Qiu 2008 14 109 11 87 1.02 [0.44; 2.37] 1.3% Guo 2007 7 36 7 34 0.93 [0.29; 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 0.39 [0.07; 2.01] 0.7%	Yang 1995	26 104			2.53	[0.90; 7.11]	0.7%
Tang 2007 10 38 13 56 1.18 [0.46] 3.06] 1.0% Qiu 2008 14 109 11 87 1.02 [0.44] 2.37] 1.3% Guo 2007 7 36 7 34 0.93 [0.29] 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57] 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17] 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35] 2.43] 1.1% Luo 2016 2 30 7 45 0.39 [0.07] 2.01] 0.7%							
Qiu 2008 14 109 11 87 1.02 [0.44; 2.37] 1.3% Guo 2007 7 36 7 34 0.93 [0.29; 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 0.39 [0.07; 2.01] 0.7%							
Guo 2007 7 36 7 34 0.93 [0.29; 3.00] 0.7% Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 0.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 0.39 [0.07; 2.01] 0.7%						• • •	
Xiong 2008 47 277 87 446 0.84 [0.57; 1.25] 7.0% Ge 2013 73 159 47 150 1.86 [1.17; 2.96] 3.3% Xiang 2010 7 35 19 89 9.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 9.39 0.39 [0.07; 2.01] 0.7%							
Xiang 2010 7 35 19 89 * 0.92 [0.35; 2.43] 1.1% Luo 2016 2 30 7 45 * 0.39 [0.07; 2.01] 0.7%	Xiong 2008						7.0%
Luo 2016 2 30 7 45 * 0.39 [0.07; 2.01] 0.7%							
Wang 2014 13 46 8 36 - 1.38 [0.50; 3.80] 0.8%							
Zhang 2002 11 51 11 66 - 1.38 [0.54; 3.48] 1.0%		11 51	11 66				1.0%
Xiong 2005 2 24 2 25 1.05 [0.14; 8.08] 0.2%				<u>[</u>			
Dai 2000 3 26 9 73 0.93 [0.23; 3.73] 0.5%	Dai 2000	3 26	9 73		0.93	[0.23; 3.73]	0.5%
Fixed effect model 5748 7093 1.11 [1.01; 1.22] 100.0%	Fixed effect model	5748	7093	6	1.11	[1.01; 1.22]	100.0%
Heterogeneity: $I^2 = 39\%$, $\tau^2 = 0.0970$, $p < 0.01$							
0.1 0.5 1 2 10				0.1 0.5 1 2 10			

	<u> </u>							
Study	Experimer Events To			ntrol Total	Odds Ratio	OR	95%-CI	Weight
								-
Singh 2006	0	78	2	76		0.19	[0.01; 4.02]	2.6%
Al-Majed 2011	15	88	1	47			[1.21; 73.98]	1.1%
Chaudhary 2012 Errera 2006	4 · 0	121 68	1 0	114 77		3.80	[0.43; 35.09]	1.0% 0.0%
Alharbi 2014		329	10	344		4.49	[2.20; 9.16]	9.1%
Inamdar 2000	14	31	10	20		0.82	[0.27; 2.54]	7.0%
Kwon 2007	1	64	1	71	F	1.11	[0.07; 18.14]	1.0%
Atta 2016	0	12	0	30			• • •	0.0%
Vauhkonen 1997	8	56	5	81	+	2.53	[0.78; 8.20]	3.7%
Erdogan 2009	0	40	0	28				0.0%
Eto 1986	2	75	3	83		0.73	[0.12; 4.50]	2.9%
Guan 2009		142	1	89 87			[0.04; 10.11]	1.3%
Leiva 2005 Liu 2003	1 [·] 0	134 56	0	87 64	i i	1.97	[0.08; 48.82]	0.6% 0.0%
Mehmet 2015	0	81	0	19				0.0%
Xie 2011	16	24	1	9	1	16.00	[1.69; 151.11]	0.5%
Mustapic 2012		129	1	329			[0.46; 57.46]	0.6%
Santos 2002	1	33	0	10		0.97	[0.04; 25.64]	0.8%
Kamboh 1995	0	62	14	396		0.21	[0.01; 3.58]	4.1%
Ng 2006		285	0	142			[0.18; 68.83]	0.7%
Eto 1995		199	10	424	_ +-	1.51	[0.57; 4.03]	6.5%
Morbois Trabut 2006		143	10	304		0.10	[0.01; 1.68]	7.1%
Powell 2003 Guangda 1999	3 1	92 67	0 2	57 55		4.50 0.40	[0.23; 88.69] [0.04; 4.55]	0.6% 2.3%
Zhang 2000	0	50	2	56	-	0.40	[0.04, 4.55]	2.3%
Zhang 2003	1	56	1	135		2 4 4	[0.15; 39.65]	0.6%
Sun 2013		180	1	56 -	_	0.10	[0.00; 2.55]	2.4%
Hua 2006	2	70	3	78		0.74	[0.12; 4.53]	2.9%
Guo 2003	2	25	1	40			[0.29; 39.50]	0.7%
Liang 2017	1	32	1	268			[0.53; 141.16]	0.2%
Shen 2002	1	85 82	1	75			[0.05; 14.33]	1.1%
Zheng 1998 Hua 2004	1 0	82 24	0 2	45 47		0.37	[0.07; 41.96] [0.02; 8.05]	0.7% 1.8%
Liu 2014	-	174	1	273			[0.02; 12.85]	1.2%
Xiang 1995	3	81	1	39			[0.15; 14.52]	1.4%
Chen 2006	1	71	1	73			[0.06; 16.77]	1.0%
Xiang 1999	3	88	1	39		1.34	[0.14; 13.31]	1.4%
Shen 2002	0	4	0	31				0.0%
Xiong 2013	2	74	2	74		1.00	[0.14; 7.29]	2.0%
Zhou 2005	0 4	47 69	0 3	46 68		1.33	IO 20: 6 101	0.0% 3.0%
Xiang 2005 Long 1999	4	37	0	101			[0.29; 6.19] [0.33; 209.40]	0.3%
Liang 2005	-	104	ŏ	68			[0.16; 70.68]	0.6%
Gu 2004	1	44	Ő	68			[0.19; 118.60]	0.4%
Yang 1995	3	81	2	40			[0.12; 4.56]	2.7%
Rong 2013	0	18	0	29				0.0%
Liu 2016		243	1	275		0.38	[0.02; 9.27]	1.5%
Tang 2007	0	28	0	43		1 20	10 20: 7 271	0.0%
Qiu 2008 Guo 2007	3 1	98 30	2 0	78 27		1.20	[0.20; 7.37] [0.11; 71.59]	2.3% 0.5%
Xiong 2008		243	6	365		3.38	[1.27; 9.02]	4.8%
Ge 2013	1	87	4	107		0.30	[0.03; 2.73]	3.7%
Xiang 2010	0	28	0	70				0.0%
Luo 2016	1	29	0	38		4.05	[0.16; 103.17]	0.4%
Zhang 2007	1	33	0	39			[0.14; 92.55]	0.5%
Wang 2014	5	38	6	34		0.71	[0.19; 2.57]	5.8%
Zhang 2002	1	41	1	56			[0.08; 22.65]	0.9%
Xiong 2005	1	23	0	23			[0.12; 81.00]	0.5%
Dai 2000	1	24	2	66		1.59	[0.12; 16.08]	1.1%
Fixed effect model		B50		5926		1.71	[1.33; 2.19]	100.0%
Heterogeneity: $I^2 = 0\%$	$t_{0}, \tau^{2} = 0, p =$	0.50						
				(0.01 0.1 1 10 100			

Study	Odds Ratio	OR	95%-C
Dmitting Singh 2006	-	- 1.17	[0.98; 1.38]
Dmitting Al-Majed 2011		1.16	[0.98; 1.37]
Omitting Chaudhary 2012		- 1.18	[1.00; 1.40]
Dmitting Errera 2006		1.15	[0.97; 1.36]
Omitting Alharbi 2014		1.15	[0.97; 1.37]
Omitting Inamdar 2000		- 1.17	[0.99; 1.39]
Dmitting Kwon 2007			[0.97; 1.35]
Dmitting Atta 2016		1.13	[0.96; 1.33]
Omitting Vauhkonen 1997		1.16	[0.98; 1.37]
Omitting Erdogan 2009		1.16	[0.98; 1.37]
Dmitting Eto 1986		- 1.17	[0.99; 1.39]
Omitting Guan 2009		1.14	[0.97; 1.35]
Dmitting Leiva 2005			[0.99; 1.39]
Dmitting Liu 2003		1.15	[0.97; 1.36]
Omitting Mehmet 2015		- 1.20	[1.03; 1.41]
Omitting Xie 2011		1.16	[0.98; 1.38]
Omitting Mustapic 2012		1.15	[0.97; 1.36]
Omitting Santos 2002		- 1.17	[0.99; 1.38]
Omitting Kamboh 1995	+ <u>.</u>		[0.97; 1.37]
Dmitting Ng 2006		- 1.17	[0.99; 1.39]
Dmitting Eto 1995		1.16	[0.97; 1.37]
Omitting Morbois Trabut 2006	<u>+</u>	- 1.17	[0.99; 1.39]
Dmitting Powell 2003	-		[0.97; 1.37]
Omitting Guangda 1999			[0.98; 1.38]
Omitting Zhang 2000		- 1.16	[0.98; 1.38]
Omitting Zhang 2003		- 1.17	[0.99; 1.39]
Omitting Sun 2013	- <u>-</u>	- 1.17	[0.99; 1.39]
Dmitting Hua 2006		1.16	[0.98; 1.37]
Dmitting Guo 2003			[0.98; 1.37]
Dmitting Liang 2017	-	- 1.17	[0.99; 1.39]
Omitting Shen 2002		- 1.18	[0.99; 1.39]
Omitting Zheng 1998		1.16	[0.98; 1.38]
Omitting Hua 2004			[0.97; 1.35]
Dmitting Liu 2014			[0.96; 1.33]
Omitting Xiang 1995	-		[0.97; 1.37]
Omitting Chen 2006			[0.98; 1.38]
Omitting Xiang 1999			[0.97; 1.37]
Omitting Shen 2002			[0.96; 1.34]
Omitting Xiong 2013	<u> </u>		[0.99; 1.39]
Omitting Zhou 2005			[0.98; 1.38]
Omitting Xiang 2005			[0.98; 1.38]
Dmitting Long 1999			[0.97; 1.36]
Omitting Liang 2005			[0.98; 1.38]
Omitting Gu 2004			[0.98; 1.37]
Omitting Yang 1995	<u>.</u>		[0.98; 1.37]
Omitting Rong 2013			[0.99; 1.38]
mitting Liu 2016			[0.96; 1.33]
Omitting Tang 2007	-		[0.98; 1.38]
Omitting Qiu 2008			[0.99; 1.39]
mitting Guo 2007			[0.99; 1.39]
mitting Xiong 2008		- 1.18	[0.99; 1.39]
mitting Ge 2013	<u> </u>		[0.99; 1.40]
mitting Xiang 2010	-	1.16	[0.98; 1.38]
mitting Luo 2016		1.16	[0.98; 1.38]
mitting Zhang 2007			[0.98; 1.38]
mitting Wang 2014			[1.00; 1.40]
mitting Zhang 2002			[0.99; 1.39]
Dmitting Xiong 2005	+ •		[0.98; 1.37]
mitting Dai 2000	<u>.</u>	- 1.17	[0.98; 1.38]
andom effects model		1.16	[0.98; 1.37]

Study	Odds Ratio	OR 95%-CI
Omitting Singh 2006		1.19 [1.10; 1.29]
Omitting Al-Majed 2011		1.17 [1.08; 1.27]
Omitting Chaudhary 2012		1.17 [1.08; 1.27]
Omitting Errera 2006		1.19 [1.10; 1.29]
Omitting Alharbi 2014		1.15 [1.06; 1.25]
Omitting Inamdar 2000		1.19 [1.10; 1.28]
Omitting Kwon 2007		1.18 [1.09; 1.28]
Omitting Atta 2016		1.17 [1.08; 1.27]
Omitting Vauhkonen 1997		1.18 [1.09; 1.28]
Omitting Erdogan 2009		1.18 [1.09; 1.28]
Omitting Eto 1986		1.18 [1.09; 1.28]
Omitting Guan 2009		1.18 [1.09; 1.27]
Omitting Leiva 2005		1.20 [1.11; 1.30]
Omitting Liu 2003		1.18 [1.09; 1.28]
Omitting Mehmet 2015	— <u> </u>	1.19 [1.10; 1.29]
Omitting Xie 2011		1.17 [1.08; 1.27]
Omitting Mustapic 2012		1.19 [1.09; 1.28]
Omitting Santos 2002		1.19 [1.10; 1.29]
Omitting Kamboh 1995		1.19 [1.10; 1.29]
Omitting Ng 2006		1.19 [1.10; 1.29]
Omitting Eto 1995		1.19 [1.10; 1.29]
Omitting Morbois Trabut 2006		1.22 [1.13; 1.32]
Omitting Powell 2003		1.19 [1.10; 1.28]
Omitting Guangda 1999		1.19 [1.10; 1.29]
Omitting Zhang 2000		1.19 [1.10; 1.28]
Omitting Zhang 2003		1.18 [1.09; 1.28]
Omitting Sun 2013		1.19 [1.10; 1.29]
Omitting Hua 2006		1.18 [1.09; 1.28]
Omitting Guo 2003		1.18 [1.09; 1.27]
Omitting Liang 2017		1.18 [1.09; 1.27]
Omitting Shen 2002		1.19 [1.10; 1.29]
Omitting Zheng 1998		1.18 [1.09; 1.28]
Omitting Hua 2004		1.19 [1.10; 1.28]
Omitting Liu 2014		1.17 [1.08; 1.27]
Omitting Xiang 1995		1.18 [1.09; 1.28]
Omitting Chen 2006		1.19 [1.10; 1.28]
Omitting Xiang 1999		1.18 [1.09; 1.28]
Omitting Shen 2002		1.17 [1.08; 1.27]
Omitting Xiong 2013		1.18 [1.09; 1.28]
Omitting Zhou 2005 Omitting Xiang 2005		1.19 [1.10; 1.29]
		1.18 [1.09; 1.28] 1.17 [1.08; 1.27]
Omitting Long 1999 Omitting Liang 2005		
Omitting Gu 2004		1.18 [1.09; 1.27] 1.18 [1.09; 1.28]
Omitting Yang 1995		1.18 [1.09; 1.28]
Omitting Rong 2013		1.18 [1.09; 1.28]
Omitting Liu 2016		1.17 [1.08; 1.27]
Omitting Tang 2007		1.18 [1.09; 1.28]
Omitting Qiu 2008		1.18 [1.09; 1.28]
Omitting Guo 2007	i	1.18 [1.09; 1.28]
Omitting Xiong 2008		1.18 [1.09; 1.28]
Omitting Ge 2013		1.18 [1.09; 1.28]
Omitting Xiang 2010		1.18 [1.09; 1.28]
Omitting Luo 2016		1.19 [1.10; 1.28]
Omitting Zhang 2007		1.19 [1.10; 1.28]
Omitting Wang 2014		1.19 [1.10; 1.29]
Omitting Zhang 2002		1.18 [1.09; 1.28]
Omitting Xiong 2005		1.18 [1.09; 1.28]
Omitting Dai 2000		1.18 [1.09; 1.28]
0		
Fixed effect model		1.18 [1.09; 1.28]
0.8	1 1.25	
0.8	1 1.20	

mitting Singh 2006 1.47 [1.11, 1.94] mitting Chaudhary 2012 1.44 [1.09, 1.91] mitting Chaudhary 2012 1.48 [1.12, 1.96] mitting Atharbi 2014 1.45 [1.05, 2.01] mitting Markar 2000 1.46 [1.11, 1.93] mitting Atharbi 2014 1.45 [1.05, 2.01] mitting Atharbi 2014 1.45 [1.11, 1.93] mitting Caudhary 2009 1.46 [1.11, 1.93] mitting Eto 1986 1.44 [1.12, 1.95] mitting Leiva 2005 1.46 [1.11, 1.93] mitting Mustapic 2012 1.46 [1.11, 1.93] mitting Mustapic 2012 1.47 [1.11, 1.94] mitting Sandos 2002 1.50 [1.13, 1.96] mitting Morbois Trabut 2006 1.44 [1.12, 1.95] mitting Quadpa 1995 1.48 [1.12, 1.97] mitting Quadpa 1999 1.47 [1.11, 1.93] mitting Chang 2003 1.47 [1.11, 1.93] mitting Chang 2003 1.47 [1.11, 1.94] mitting Chang 2003 1.47 [1.11, 1.94] mitting Chang 2003 1.47 [1.11, 1	tudy mitting Singh 2006 mitting Al-Majed 2011 mitting Chaudhary 2012 mitting Errera 2006 mitting Alharbi 2014 mitting Inamdar 2000		1.47	
mitting At-Majed 2011 144 109 191 mitting Chaudhary 2012 148 112 196 mitting Atharbi 2014 145 111 193 mitting Atharbi 2014 146 111 193 mitting Atharbi 2016 146 111 193 mitting Atharbi 2016 146 111 193 mitting Caludonen 1997 146 111 193 mitting Eto 1986 148 112 195 mitting Leiva 2005 146 111 193 mitting Leiva 2005 146 111 193 mitting Machaol 2002 146 111 193 mitting Size 2011 148 112 195 mitting Kamboh 1995 148 112 195 mitting Kamboh 1995 147 111 194 mitting Quoga 147 111 194 mitting Quagda 1999 147 111 194 mitting Guagda 1999 147 111 144 mitting Quoga 144 102 102 mitting Quoga	mitting Al-Majed 2011 mitting Chaudhary 2012 mitting Errera 2006 mitting Alharbi 2014			
mitting Chaudhary 2012 148 112:196 mitting Altarbi 2014 146 111:193 mitting Altarbi 2014 146 111:193 mitting Marbi 2014 146 111:193 mitting Marbi 2014 146 111:193 mitting Atta 2016 146 111:193 mitting Caugan 2009 146 111:193 mitting Caugan 2003 146 111:193 mitting Mustapic 2012 147 111:193 mitting Kamboh 1995 148 112:196 mitting Caugada 1999 147 111:194 mitting Caugada 1999 147 111:193 mitting Caugan 2000 146 111:193 mitting Caugan 2003 147 111:194 mitting Caugan 2003 147 111:194 mitting Caugan 2003 147 111:194	mitting Chaudhary 2012 mitting Errera 2006 mitting Alharbi 2014			
mitting Errera 2006 146 1.11: 1.93 mitting Alharbi 2014 1.45 1.15: 1.05: 2.01 mitting Marka 2016 1.46 1.11: 1.93 mitting Vandar 2009 1.46 1.11: 1.93 mitting Vandar 2009 1.46 1.11: 1.93 mitting Canage 2009 1.46 1.11: 1.93 mitting Leiva 2005 1.46 1.11: 1.93 mitting Vandard 2000 1.46 1.11: 1.93 mitting Leiva 2005 1.46 1.11: 1.93 mitting Vandard 2011 1.46 1.11: 1.93 mitting Vandard 2002 1.50 1.31: 1.98 mitting Vandard 2002 1.50 1.13: 1.98 mitting Vandard 2003 1.47 1.11: 1.93 mitting Vandard 2006 1.47 1.11: 1.94 mitting Vandard 2003 1.47 1.11: 1.94 mitting Vandard 1999 1.46 1.11: 1.94 mitting Vandard 1999 1.46 1.11: 1.94	mitting Errera 2006 mitting Alharbi 2014			
mitting Alharbi 2014 145 [1.05; 2.01] mitting Kano 2007 1.46 [1.11; 1.93] mitting Kano 2007 1.46 [1.11; 1.93] mitting Cala 2009 1.46 [1.11; 1.93] mitting Eto 1986 1.46 [1.11; 1.93] mitting Eto 1986 1.46 [1.11; 1.93] mitting Gua 2009 1.46 [1.11; 1.93] mitting Gua 2009 1.46 [1.11; 1.93] mitting Gua 2005 1.46 [1.11; 1.93] mitting Kau 2005 1.46 [1.11; 1.93] mitting Kamboh 1995 1.46 [1.11; 1.93] mitting Morbois Trabut 2006 1.47 [1.11; 1.94] mitting Chang 2000 1.47 [1.11; 1.94] mitting Chang 2003 1.47 [1.11; 1.94] mitting Chang 2003 1.47 [1.11; 1.94] mitting Gua 2003 1.47 [1.11; 1.94] mitting Shen 2002 1.47 [1.11; 1.94] mitting Shen 2002 1.47 [1.11; 1.94] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 1995 1.46 [1.11; 1.94] mit	mitting Alharbi 2014			
mitting hamdar 2000 146 1111 193 mitting Kwon 2007 146 1111 193 mitting Kwon 2007 146 1111 193 mitting Zup 2009 146 1111 193 mitting Guan 2009 146 1111 193 mitting Kuba 2005 146 1111 193 mitting Kuba 2003 146 1111 193 mitting Santos 2002 150 113 198 mitting Santos 2002 150 113 147 mitting Santos 2002 147 1111 194 mitting Guanda 1999 147 1111 194 mitting Chang 2003 147 1111 194 mitting Guanda 1999 </td <td></td> <td></td> <td></td> <td></td>				
mitting Kwon 2007 1.46 1.11: 1.93 mitting Vatka 2016 1.46 1.11: 1.93 mitting Guan 2009 1.46 1.11: 1.93 mitting Leiva 2005 1.46 1.11: 1.93 mitting Mustapic 2012 1.46 1.11: 1.93 mitting Kamboh 1995 1.48 1.12: 1.95 mitting Kamboh 1995 1.48 1.12: 1.95 mitting Guangda 1999 1.47 1.11: 1.93 mitting Guangda 1999 1.47 1.11: 1.94 mitting San 2003 1.46 1.11: 1.93 mitting Shen 2002 1.46 1.11: 1.93 mitting Shen 2002 1.47 1.11: 1.94 mitting Shen 2002 1.47 1.11: 1.94 mitting Xiang 1995 1.46 1.11: 1.93 mitting Xiang 1995 1.46 1.11: 1.94 mitting Xiang 2005 1.47 1.11: 1.94 mitting Xiang 2005 1.47 1.11: 1.94 mitting Xiang 2005 <td< td=""><td>mitting inamdar 2000</td><td></td><td></td><td></td></td<>	mitting inamdar 2000			
mitting Atta 2016 1.46 1.11, 1.93 mitting Yauhkonen 1997 1.46 1.11, 1.93 mitting Edogan 2009 1.46 1.11, 1.93 mitting Guan 2009 1.46 1.11, 1.93 mitting Guan 2009 1.46 1.11, 1.93 mitting Guan 2009 1.46 1.11, 1.93 mitting Cuan 2009 1.46 1.11, 1.93 mitting Kata 2005 1.46 1.11, 1.93 mitting Kata 2005 1.46 1.11, 1.93 mitting Kata 2005 1.46 1.11, 1.93 mitting Kata 2011 1.46 1.11, 1.93 mitting Santos 2002 1.50 1.50 1.13, 1.98 mitting Santos 2002 1.50 1.13, 1.98 1.47 1.11, 1.93 mitting Mobois Trabut 2006 1.47 1.11, 1.94 1.12, 1.96 mitting Chang 2003 1.47 1.11, 1.94 1.11, 1.93 mitting Guang 2003 1.47 1.11, 1.94 1.11, 1.94 mitting Chang 2003 1.47 1.11, 1.94 1.11, 1.94 mitting Chang 2003 1.46 1.41, 1.09, 1.91 1.46 mitting Yang 1995 <t< td=""><td>mitting Kwon 2007</td><td></td><td></td><td></td></t<>	mitting Kwon 2007			
mitting Vauhkonen 1997 146 [1.11, 1.93] mitting Erdogan 2009 146 [1.11, 1.93] mitting Guan 2009 146 [1.11, 1.93] mitting Guan 2009 141 [1.06, 1.87] mitting Leiva 2005 146 [1.11, 1.93] mitting Mehmet 2015 146 [1.11, 1.93] mitting Xie 2011 148 [1.12, 1.95] mitting Kamboh 1995 148 [1.12, 1.95] mitting Kamboh 1995 148 [1.12, 1.96] mitting Dorbois Trabut 2006 149 [1.11, 1.93] mitting Dovel 2003 147 [1.11, 1.94] mitting Lang 2003 147 [1.11, 1.94] mitting Gua 2003 147 [1.11, 1.94] mitting Shen 2002 147 [1.11, 1.94] mitting Xiang 1998 147 [1.11, 1.94] mitting Xiang 1995 145 [1.10, 1.92] mitting Xiang 1995 145 [1.10, 1.92] mitti				
mitting Erdogan 2009 146 [1.11; 1.93] mitting Eto 1986 148 [1.12; 1.95] mitting Leiva 2005 146 [1.11; 1.93] mitting Leiva 2005 146 [1.11; 1.93] mitting Mustapic 2015 146 [1.11; 1.93] mitting Mustapic 2012 147 [1.11; 1.93] mitting Mustapic 2012 147 [1.11; 1.93] mitting Mastapic 2012 147 [1.11; 1.93] mitting Mastapic 2012 147 [1.11; 1.94] mitting Mastapic 2012 147 [1.11; 1.94] mitting Morbois Trabut 2006 149 [1.12; 1.96] mitting Chang 2003 147 [1.11; 1.94] mitting Guang 2000 146 [1.11; 1.94] mitting Guang 2003 147 [1.11; 1.94] mitting Guang 2003 147 [1.11; 1.94] mitting Guang 2003 146 [1.11; 1.93] mitting Guang 2001 146 [1.11; 1.94] mitting Guang 2002 147 [1.11; 1.94] mitting Guang 2003 146 [1.11; 1.94] mitting Chang 2004 146 [1.11; 1.94] <tr< td=""><td>•</td><td></td><td></td><td></td></tr<>	•			
mitting Eto 1986 1.48 [1.12, 1.95] mitting Guan 2009 1.41 [1.06, 1.87] mitting Liv 2003 1.46 [1.11, 1.93] mitting Mehmet 2015 1.46 [1.11, 1.93] mitting Mehmet 2015 1.46 [1.11, 1.93] mitting Mustapic 2012 1.47 [1.11, 1.94] mitting Santos 2002 1.50 [1.13, 1.98] mitting Kamboh 1995 1.47 [1.11, 1.94] mitting Morbois Trabut 2006 1.49 [1.12, 1.95] mitting Quagda 1999 1.47 [1.11, 1.94] mitting Sun 2013 1.48 [1.12, 1.96] mitting Sun 2013 1.48 [1.12, 1.96] mitting Liang 2003 1.44 [1.09, 1.90] mitting Sun 2013 1.44 [1.09, 1.90] mitting Liang 2017 1.46 [1.11, 1.94] mitting Liang 2017 1.46 [1.10, 1.92] mitting Shen 2002 1.47 [1.11, 1.94] mitting Liang 2005 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92]				
mitting Guan 2009 141 [1.06]; 1.87 mitting Leiva 2005 1.46 [1.11]; 1.93 mitting Mehmet 2015 1.46 [1.11]; 1.93 mitting Xie 2011 1.48 [1.12]; 1.95 mitting Xie 2012 1.47 [1.11]; 1.93 mitting Xie 2012 1.47 [1.11]; 1.93 mitting Xie 2012 1.48 [1.12]; 1.95 mitting Xie 2002 1.50 [1.13]; 1.98 mitting Morbois Trabut 2006 1.49 [1.12]; 1.97 mitting Quagda 1999 1.47 [1.11]; 1.93 mitting Quagda 1999 1.47 [1.11]; 1.93 mitting Quagda 1999 1.47 [1.11]; 1.94 mitting Chang 2000 1.46 [1.11]; 1.94 mitting Chang 2003 1.44 [1.09]; 1.99 mitting Gua 2013 1.44 [1.09]; 1.99 mitting Shen 2002 1.47 [1.11]; 1.94 mitting Xiang 1995 1.45 [1.10]; 1.92 mitting Xiang 1995 1.45 [1.10]; 1.92 mitting Xiang 1995 1.45 [1.10]; 1.92 mitting Xiang 2005 1.46 [1.11]; 1.94 <	0 0			
mitting Leiva 2005 146 [1.11; 1.93] mitting Liu 2003 146 [1.11; 1.93] mitting Mustapic 2012 146 [1.11; 1.93] mitting Mustapic 2012 147 [1.11; 1.93] mitting Mustapic 2012 147 [1.11; 1.93] mitting Kamboh 1995 148 [1.12; 1.96] mitting Morbois Trabut 2006 145 [1.10; 1.92] mitting Guagda 1999 147 [1.11; 1.93] mitting Guagda 1999 147 [1.11; 1.93] mitting Guagda 1999 147 [1.11; 1.93] mitting Guagda 1999 147 [1.11; 1.94] mitting Guagda 1999 147 [1.11; 1.94] mitting Sung 2003 146 [1.11; 1.94] mitting Sung 2003 147 [1.11; 1.94] mitting Guagda 1999 147 [1.11; 1.94] mitting Sung 2003 146 [1.11; 1.94] mitting Guagda 1999 147 [1.11; 1.94] mitting Guagda 1999 147 [1.11; 1.94] mitting Guagda 1999 147 [1.11; 1.94] mitting Guagda 1999 146 [1.11; 1.94]				
mitting Liu 2003 146 [1.11; 1.93] mitting Mehmet 2015 146 [1.11; 1.93] mitting Mustapic 2012 147 [1.11; 1.93] mitting Kamboh 1995 148 [1.12; 1.96] mitting Kamboh 1995 148 [1.12; 1.96] mitting Kamboh 1995 148 [1.12; 1.96] mitting Morbois Trabut 2006 1.47 [1.11; 1.93] mitting Guangda 1999 1.47 [1.11; 1.94] mitting Guangda 1999 1.47 [1.11; 1.94] mitting Guangda 1999 1.47 [1.11; 1.94] mitting Guang 2003 1.44 [1.09; 1.90] mitting Gua 2003 1.44 [1.09; 1.90] mitting Shen 2002 1.47 [1.11; 1.94] mitting Xiang 1998 1.44 [1.09; 1.90] mitting Xiang 1995 1.45 [1.01; 1.92] mitting Xiang 1995 1.46 [1.11; 1.93] mitting Xiang 2005 1.446 [1.11; 1.93] </td <td>0</td> <td></td> <td></td> <td></td>	0			
mitting Mehmet 2015 146 [1.11; 1.93 mitting Xie 2011 148 [1.12; 1.95 mitting Kamboh 1995 147 [1.11; 1.94] mitting Morbois Trabut 2006 149 [1.12; 1.97] mitting Changda 1999 147 [1.11; 1.94] mitting Zhang 2000 146 [1.11; 1.93] mitting Guagda 1999 147 [1.11; 1.94] mitting Changda 1999 147 [1.11; 1.94] mitting Chang 2003 147 [1.11; 1.94] mitting Gua 2003 144 [1.09; 1.90] mitting Gua 2003 147 [1.11; 1.94] mitting Chang 2001 147 [1.11; 1.94] mitting Chang 2002 147 [1.11; 1.94] mitting Xiang 1995 147 [1.11; 1.94] mitting Xiang 1995 145 [1.10; 1.92] mitting Xiang 2005 1445 [1.10; 1.92] mi				
mitting Xie 2011 1.48 [1.12, 1.95] mitting Mustapic 2012 1.47 [1.11, 1.94] mitting Kamboh 1995 1.48 [1.12, 1.96] mitting Ng 2006 1.45 [1.12, 1.96] mitting Ng 2006 1.445 [1.12, 1.96] mitting Nobis Trabut 2006 1.47 [1.11, 1.94] mitting Quagda 1999 1.47 [1.11, 1.94] mitting Shang 2003 1.47 [1.11, 1.94] mitting Sung 2003 1.47 [1.11, 1.94] mitting Sung 2003 1.44 [1.12, 1.96] mitting Sung 2003 1.447 [1.11, 1.94] mitting Sung 2003 1.44 [1.11, 1.94] mitting Sung 2013 1.44 [1.11, 1.94] mitting Shen 2002 1.44 [1.11, 1.94] mitting Xiang 1998 1.47 [1.11, 1.94] mitting Xiang 1995 1.44 [1.01, 1.27] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 2005 1.45 [1.11, 1.94] mitting Xiang 2005 1.46 [1.11, 1.93]	0			
mitting Mustapic 2012 1.47 1.11, 1.94 mitting Santos 2002 1.50 [1.13, 1.98] mitting Kamboh 1995 1.48 [1.12, 1.96] mitting Kamboh 1995 1.445 [1.11, 1.94] mitting Kamboh 1995 1.447 [1.11, 1.94] mitting Kamboh 1995 1.447 [1.11, 1.94] mitting Kamboh 1995 1.447 [1.11, 1.94] mitting Morbois Trabut 2006 1.447 [1.11, 1.93] mitting Claugda 1999 1.447 [1.11, 1.94] mitting Zhang 2003 1.446 [1.11, 1.94] mitting Gua 2003 1.446 [1.11, 1.94] mitting Guo 2003 1.446 [1.11, 1.93] mitting Guo 2003 1.447 [1.11, 1.94] mitting Shen 2002 1.447 [1.11, 1.94] mitting Xiang 1995 1.445 [1.00, 1.92] mitting Xiang 1995 1.445 [1.01, 1.92] mitting Xiang 1995 1.445 [1.11, 1.94] mitting Xiang 1995 1.446 [1.11, 1.93] mitting Xiang 1995 1.446 [1.11, 1.93] mitting Xiang 1995 1.446 [1.11, 1.93] </td <td></td> <td></td> <td></td> <td></td>				
mitting Santos 2002 1.50 1.13; 1.98 mitting Kamboh 1995 1.48 [1.12; 1.96] mitting Borbos Trabut 2006 1.447 [1.11; 1.94] mitting Powell 2003 1.47 [1.11; 1.94] mitting Zhang 2000 1.46 [1.11; 1.94] mitting Chang 2000 1.447 [1.11; 1.94] mitting Sun 2013 1.446 [1.11; 1.94] mitting Guo 2003 1.446 [1.11; 1.94] mitting Cheng 1998 1.447 [1.11; 1.94] mitting Kang 1995 1.447 [1.11; 1.94] mitting Xiang 1995 1.445 [1.10; 1.92] mitting Xiang 1995 1.445 [1.10; 1.92] mitting Xiang 2005 1.445 [1.10; 1.92] mitting Xiang 2005 1.445 [1.10; 1.92] mitting Xiang 2005 1.446 [1.11; 1.94] mitting Xiang 2005 1.446 [1.11; 1.93] mitting Guo 2007 1.466 [1.11; 1.93]	0			
mitting Kamboh 1995 1.48 1.12 1.96 mitting Ng 2006 1.45 1.10 1.92 mitting Kamboh 1995 1.47 1.11 1.14 1.12 1.96 mitting Morbois Trabut 2006 1.49 1.12 1.97 1.47 1.11 1.94 mitting Guangda 1999 1.47 1.11 1.94 1.12 1.97 mitting Chang 2000 1.44 1.11 1.93 1.46 1.11 1.93 mitting Sun 2013 1.48 1.12 1.96 1.44 1.11 1.93 mitting Gua 2003 1.44 1.01 1.11 1.94 1.14 1.11 1.94 mitting Gua 2003 1.44 1.11 1.93 1.46 1.11 1.93 mitting Gua 2003 1.44 1.11 1.93 1.46 1.11 1.93 mitting Shen 2002 1.44 1.01 1.44 1.01 1.93 1.44 1.01 1.94 1.45 1.10 1.91 1.45 1.10 1.92 1.45 1.10 1.91 1.45 1.10 1.91	mitting Santos 2002			
mitting Ng 2006 1.45 [1.10, 1.92] mitting Eto 1995 1.47 [1.11, 1.94] mitting Guangda 1999 1.47 [1.11, 1.93] mitting Zhang 2003 1.47 [1.11, 1.94] mitting Davag 2003 1.47 [1.11, 1.94] mitting Zhang 2003 1.44 [1.12, 1.97] mitting Zhang 2003 1.44 [1.11, 1.94] mitting Cuo 2003 1.44 [1.12, 1.97] mitting Guo 2003 1.44 [1.11, 1.94] mitting Guo 2003 1.44 [1.09, 1.90] mitting Chen 2006 1.44 [1.01, 1.93] mitting Liu 2014 1.44 [1.09, 1.91] mitting Shen 2002 1.45 [1.10, 1.92] mitting Shen 2002 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 2005 1.45 [1.10, 1.92] mitting Xiang 2005 1.46 [1.11, 1.93] mitting Rong 2013 1.46 [1.11, 1.93] mitting Guo 2007 1.46 [1.11, 1.93] mitting Qiu 2008 1.46 [1.11, 1.93] mitting Qiu 20	mitting Kamboh 1995			
mitting Eto 1995 1.47 [1.11; 1.94] mitting Morbois Trabut 2006 1.49 [1.12; 1.97] mitting Quangda 1999 1.47 [1.11; 1.95] mitting Zhang 2000 1.46 [1.11; 1.93] mitting Zhang 2003 1.46 [1.11; 1.94] mitting Zhang 2003 1.44 [1.11; 1.94] mitting Sun 2013 1.44 [1.12; 1.96] mitting Guo 2003 1.44 [1.09; 1.90] mitting Shen 2002 1.44 [1.11; 1.94] mitting Shen 2002 1.47 [1.11; 1.94] mitting Xiang 1995 1.47 [1.11; 1.94] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 2005 1.46 [1.11; 1.93] mitting Xiang 2005 1.46 [1.11; 1.93] mitting Quo 2005 1.46 [1.11; 1.93] mitting Yang 1995 1.47 [1.11; 1.93] mitting Quo 2005 1.46 [1.11; 1.93] mitting Quo 2005 1.46 [1.11; 1.93] <td< td=""><td>mitting Ng 2006</td><td></td><td></td><td></td></td<>	mitting Ng 2006			
mitting Morbois Trabut 2006 1.49 [1.12, 1.97] mitting Powell 2003 1.47 [1.11, 1.95] mitting Guangda 1999 1.47 [1.11, 1.94] mitting Zhang 2000 1.46 [1.11, 1.93] mitting Sun 2013 1.48 [1.12, 1.96] mitting Sun 2013 1.44 [1.09, 1.90] mitting Guo 2003 1.44 [1.09, 1.90] mitting Shen 2002 1.47 [1.11, 1.94] mitting Thua 2006 1.44 [1.09, 1.90] mitting Liang 2017 1.46 [1.11, 1.94] mitting Liang 2017 1.46 [1.11, 1.94] mitting Kiang 1998 1.47 [1.11, 1.94] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 2005 1.46 [1.11, 1.94] mitting Xiang 2005 1.46 [1.11, 1.93] mitting Gua 2004 1.46 [1.11, 1.93] mitting Gua 2005 1.46 [1.11, 1.93] mitting Gua 2004 1.46 [1.11, 1.93] mitting Gua 2007 1.46 [1.11, 1.93] <td< td=""><td>mitting Eto 1995</td><td></td><td></td><td></td></td<>	mitting Eto 1995			
mitting Powell 2003 1.47 [1.11; 1.95] mitting Guangda 1999 1.47 [1.11; 1.93] mitting Zhang 2000 1.46 [1.11; 1.93] mitting Zhang 2003 1.47 [1.11; 1.94] mitting Sun 2013 1.47 [1.11; 1.93] mitting Guo 2003 1.47 [1.11; 1.94] mitting Guo 2003 1.44 [1.00; 1.90] mitting Shen 2002 1.44 [1.01; 1.93] mitting Liang 2017 1.46 [1.11; 1.94] mitting Shen 2002 1.47 [1.11; 1.94] mitting Liu 2014 1.44 [1.00; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 2005 1.44 [1.11; 1.94] mitting Xiang 2005 1.46 [1.11; 1.93] mitting Guo 2003 1.46 [1.11; 1.93] mitting Guo 2005 1.46 [1.11; 1.93] mitting Yang 2005 1.46 [1.11; 1.93] mitting Guo 2007 1.46 [1.11; 1.93] mitting Guo 2007 1.46 [1.11; 1.93] mitting Xia	mitting Morbois Trabut 2006			
mitting Zhang 2000 1.46 [1.11; 1.93] mitting Zhang 2003 1.47 [1.11; 1.93] mitting Sun 2013 1.48 [1.12; 1.96] mitting Guo 2003 1.44 [1.09; 1.90] mitting Liang 2017 1.46 [1.11; 1.93] mitting Shen 2002 1.47 [1.11; 1.93] mitting Zhang 2004 1.44 [1.09; 1.93] mitting Zhang 1998 1.47 [1.11; 1.94] mitting Xiang 1998 1.47 [1.11; 1.94] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 2005 1.46 [1.11; 1.94] mitting Xiang 2005 1.46 [1.11; 1.93] mitting Quo 2004 1.46 [1.11; 1.94] mitting Quo 2005 1.46 [1.11; 1.94] mitting Quo 2005 1.46 [1.11; 1.93] mitting Quo 2007 1.46 [1.11; 1.93] mitting Quo 2007 1.46 [1.11; 1.93] mitting Xi	mitting Powell 2003		1.47	[1.11; 1.95]
mitting Zhang 2003 1.47 [1.11; 1.94 mitting Sun 2013 1.48 [1.12; 1.96 mitting Guo 2003 1.44 [1.09; 1.90 mitting Guo 2003 1.46 [1.10; 1.93 mitting Zheng 1998 1.47 [1.11; 1.94 mitting Zheng 1998 1.47 [1.11; 1.94 mitting Xiang 1995 1.45 [1.10; 1.92 mitting Xiang 1999 1.45 [1.10; 1.92 mitting Xiang 2005 1.40 [1.06; 1.85 mitting Xiang 2005 1.46 [1.11; 1.93 mitting Qiang 2007 1.46 [1.11; 1.93 mitting Qiang 2007 1.48 [1.12; 1.96 mitting Xiang 2010 1.46 [1.11; 1.93 mitting Xiang 2001 <td>mitting Guangda 1999</td> <td></td> <td></td> <td></td>	mitting Guangda 1999			
mitting Sun 2013 1.48 [1.12; 1.96] mitting Hua 2006 1.44 [1.09; 1.90] mitting Liang 2017 1.46 [1.11; 1.93] mitting Shen 2002 1.44 [1.00; 1.90] mitting Shen 2002 1.47 [1.11; 1.94] mitting Shen 2002 1.44 [1.00; 1.92] mitting Xiang 1998 1.47 [1.11; 1.94] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 2005 1.48 [1.12; 1.96] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 2005 1.45 [1.10; 1.92] mitting Xiang 2005 1.47 [1.11; 1.94] mitting Quag 2013 1.48 [1.12; 1.96] mitting Gua 2004 1.46 [1.11; 1.93] mitting Gua 2005 1.46 [1.11; 1.93] mitting Gua 2007 1.46 [1.11; 1.93] mitting Gua 2007 1.48 [1.12; 1.96] mitting Xiang 2007 1.48 [1.12; 1.96] mitting Xiang 2007 1.46 [1.11; 1.93] mitting Xia	mitting Zhang 2000		1.46	[1.11; 1.93]
mitting Hua 2006 1.44 [1.09, 1.90] mitting Guo 2003 1.46 [1.11; 1.93] mitting Liang 2017 1.46 [1.10; 1.93] mitting Shen 2002 1.47 [1.11; 1.94] mitting Hua 2004 1.47 [1.11; 1.94] mitting Liang 1998 1.47 [1.11; 1.94] mitting Kiang 1995 1.45 [1.10; 1.92] mitting Xiang 2005 1.45 [1.10; 1.92] mitting Xiang 2005 1.44 [1.01; 1.93] mitting Liang 2005 1.46 [1.11; 1.93] mitting Gua 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Gua 2007 1.48 [1.12; 1.96] mitting Xiang 2007 1.48 [1.12; 1.96] mitting Gua 2007 1.48 [1.12; 1.96] mitting Gua 2007 1.46 [1.11; 1.93] mitting Xia	mitting Zhang 2003			
mitting Guo 2003 1.46 [1.11; 1.93] mitting Liang 2017 1.46 [1.10; 1.93] mitting Shen 2002 1.47 [1.11; 1.94] mitting Hua 2004 1.47 [1.11; 1.94] mitting Liu 2014 1.44 [1.00; 1.91] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 2005 1.44 [1.06; 1.85] mitting Xiang 2005 1.47 [1.11; 1.94] mitting Long 1999 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2005 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2007 1.48 [1.12; 1.96] mitting Xiang 2010 1.48 [1.12; 1.96] mitting Xiang 2007	mitting Sun 2013			
mitting Liang 2017 1.46 [1.10, 1.93] mitting Shen 2002 1.47 [1.11, 1.94] mitting Zheng 1998 1.47 [1.11, 1.94] mitting Liu 2014 1.44 [1.09, 1.91] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Xiang 1995 1.45 [1.10, 1.92] mitting Chen 2006 1.45 [1.10, 1.92] mitting Xiang 1999 1.45 [1.10, 1.92] mitting Xiang 1999 1.45 [1.10, 1.92] mitting Xiang 2005 1.44 [1.02, 1.92] mitting Xiang 2005 1.44 [1.11, 1.94] mitting Liang 2005 1.44 [1.11, 1.94] mitting Cu 2004 1.46 [1.11, 1.93] mitting Gu 2004 1.46 [1.11, 1.94] mitting Cu 2005 1.46 [1.11, 1.93] mitting Gu 2004 1.46 [1.11, 1.94] mitting Gu 2004 1.46 [1.11, 1.94] mitting Gu 2005 1.46 [1.11, 1.93] mitting Gu 2007 1.46 [1.11, 1.94] mitting Gu 2007 1.46 [1.11, 1.93] mitting Ge 2013				• •
mitting Shen 2002 1.47 [1.11; 1.94] mitting Zheng 1998 1.47 [1.11; 1.94] mitting Hua 2004 1.44 [1.09; 1.91] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 2005 1.44 [1.02; 1.92] mitting Xiang 2005 1.44 [1.11; 1.94] mitting Cu 2005 1.46 [1.11; 1.94] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2005 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2005 1.46 [1.11; 1.93] mitting Gu 2007 1.46 [1.11; 1.93] mitting Gu 2007 1.46 [1.11; 1.93] mitting Gu 2007 1.46 [1.11; 1.93] mitting Gu 2016 1.46 [1.11; 1.93] mitting Zhang 2007	•			• • •
mitting Zheng 1998 1.47 1.11; 1.94 mitting Liu 2014 1.44 1.09; 1.91 mitting Xiang 1995 1.45 1.10; 1.92 mitting Xiang 1995 1.45 1.10; 1.92 mitting Xiang 1999 1.45 1.10; 1.92 mitting Xiang 2002 1.40 1.06; 1.85 mitting Xiang 2005 1.47 1.11; 1.94 mitting Chou 2005 1.46 1.11; 1.93 mitting Quag 2005 1.46 1.11; 1.93 mitting Gu 2004 1.46 1.11; 1.93 mitting Qiu 2008 1.46 1.11; 1.93 mitting Qiu 2008 1.47 1.11; 1.93 mitting Xiang 2007 1.48 1.12; 1.96 mitting Xiang 2007 1.46 1.11; 1.93 mitting Xiang 2007 1.46 1.11; 1.93 mitting Xiang 2007 1.46 1.11; 1.93 mitting Xiang 2007 1.46				
mitting Hua 2004 1.44 [1.09; 1.91] mitting Liu 2014 1.34 [1.01; 1.79] mitting Xiang 1995 1.45 [1.10; 1.92] mitting Xiang 1999 1.45 [1.10; 1.92] mitting Xiang 2005 1.40 [1.06; 1.85] mitting Zhou 2005 1.47 [1.11; 1.94] mitting Liang 2005 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2007 1.46 [1.11; 1.93] mitting Gu 2007 1.48 [1.2; 1.96] mitting Gu 2007 1.48 [1.12; 1.96] mitting Gu 2007 1.48 [1.12; 1.96] mitting Xiang 2010 1.44 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiang 2014 1.46 [1.12; 1.96] mitting Xiang 2005<				
mitting Liu 2014 1.34 1.01; 1.79 mitting Xiang 1995 1.45 1.10; 1.92 mitting Xiang 1999 1.45 1.10; 1.92 mitting Xiang 1999 1.45 1.10; 1.92 mitting Xiang 1999 1.45 1.10; 1.92 mitting Xiang 2002 1.40 1.06; 1.85 mitting Xiang 2005 1.47 1.11; 1.94 mitting Liang 2005 1.46 1.11; 1.93 mitting Kang 2005 1.46 1.11; 1.93 mitting Kang 2005 1.46 1.11; 1.93 mitting Gu 2004 1.46 1.11; 1.93 mitting Kang 2005 1.46 1.11; 1.93 mitting Gu 2004 1.46 1.11; 1.93 mitting Gu 2007 1.46 1.11; 1.93 mitting Gu 2007 1.48 1.12; 1.96 mitting Xiang 2010 1.48 1.12; 1.96 mitting Xiang 2010 1.46 1.11; 1.93 mitting Xiang 2010 1.46 1.11; 1.93 mitting Xiang 2010 1.46 1.11; 1.93 mitting Xiang 2007 1.46 1.11; 1.93 mitting Xiang 2002 1.46 <t< td=""><td></td><td></td><td></td><td>• • •</td></t<>				• • •
mitting Xiang 1995 1.45 1.10 1.92 mitting Chen 2006 1.45 1.10 1.92 mitting Xiang 1999 1.45 1.10 1.92 mitting Shen 2002 1.40 1.06 1.85 mitting Xiang 2005 1.48 1.12 1.96 mitting Long 1999 1.46 1.11 1.93 mitting Gu 2004 1.46 1.11 1.93 mitting Rong 2013 1.46 1.11 1.93 mitting Qu 2006 1.46 1.11 1.93 mitting Gu 2004 1.46 1.11 1.93 mitting Rong 2013 1.46 1.11 1.93 mitting Gu 2007 1.48 1.12 1.96 mitting Xiang 2010 1.48 1.12 1.96 mitting Xiang 2010 1.46 1.11 1.93 mitting Zhang 2007 1.46 1.14 1.12 1.95 <t< td=""><td>-</td><td></td><td></td><td></td></t<>	-			
mitting Chen 2006 1.45 1.10 1.92 mitting Xiang 1999 1.45 1.10 1.92 mitting Shen 2002 1.40 1.06 1.85 mitting Xiang 2013 1.48 1.12 1.96 mitting Xiang 2005 1.47 1.11 1.93 mitting Long 1999 1.46 1.11 1.93 mitting Gu 2004 1.46 1.11 1.93 mitting Rong 2013 1.46 1.11 1.93 mitting Qu 2007 1.46 1.11 1.93 mitting Gu 2007 1.46 1.11 1.93 mitting Qu 2008 1.46 1.11 1.93 mitting Qu 2007 1.46 1.11 1.93 mitting Qu 2008 1.47 1.11 1.94 mitting Xiang 2010 1.48 1.12 1.96 mitting Xiang 2010 1.46 1.11 1.93 mitting Zhang 2007 1.46 1.11 1.93 mitting Xiang 2010 1.46 1.11 1.93 mitting Zhang 2007 1.46 1.14 1.12 1.93	-			
mitting Xiang 1999 1.45 1.10 1.91 mitting Shen 2002 1.40 1.06 1.85 mitting Xiong 2013 1.48 1.12 1.96 mitting Xiang 2005 1.50 1.13 1.98 mitting Long 1999 1.46 1.11 1.93 mitting Lang 2005 1.46 1.11 1.93 mitting Gu 2004 1.46 1.11 1.93 mitting Rong 2013 1.46 1.11 1.93 mitting Qiu 2006 1.46 1.11 1.93 mitting Gu 2007 1.46 1.11 1.93 mitting Xiang 2010 1.46 1.11 1.93 mitting Zhang 2007 1.46 1.11 1.93 mitting Zhang 2007 1.46 1.11 1.93 mitting Zhang 2002 1.48 1.12 1.93 mitti				
mitting Shen 2002 1.40 [1.06, 1.85] mitting Xiong 2013 1.48 [1.12; 1.96] mitting Xiang 2005 1.47 [1.11; 1.94] mitting Long 1999 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2006 1.46 [1.11; 1.93] mitting Guo 2007 1.46 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.46 [1.11; 1.93] mitting Xiong 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.48 [1.12; 1.96] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.95] mitting	0			
mitting Xiong 2013 1.48 [1.12; 1.96] mitting Zhou 2005 1.50 [1.13; 1.98] mitting Long 1999 1.46 [1.11; 1.94] mitting Gu 2005 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2006 1.46 [1.11; 1.93] mitting Qiu 2007 1.46 [1.11; 1.93] mitting Qiu 2008 1.48 [1.2; 1.96] mitting Qiu 2008 1.46 [1.11; 1.93] mitting Qiu 2007 1.46 [1.11; 1.93] mitting Qiu 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2007 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2007 1.48 [1.12; 1.96] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005	0 0			
mitting Zhou 2005 1.50 [1.13; 1.98] mitting Xiang 2005 1.47 [1.11; 1.94] mitting Long 1999 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2008 1.46 [1.11; 1.93] mitting Guo 2007 1.46 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2007 1.46 [1.11; 1.93] mitting Xiong 2010 1.46 [1.11; 1.93] mitting Xiong 2007 1.46 [1.11; 1.93] mitting Xiong 2007 1.46 [1.11; 1.93] mitting Xiong 2007 1.46 [1.11; 1.93] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Xiong 2005 1.46 [1.11; 1.93] mittin				
mitting Xiang 2005 1.47 [1.11; 1.94] mitting Long 1999 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2006 1.46 [1.11; 1.93] mitting Guo 2007 1.46 [1.11; 1.93] mitting Qiu 2008 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.46 [1.11; 1.93] mitting Lua 2016 1.46 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiang 2014 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.96] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93]	0 0			
mitting Long 1999 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2008 1.46 [1.11; 1.93] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.11; 1.93] mitting Guo 2007 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Ziang 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93]				
mitting Liang 2005 1.46 [1.11; 1.93] mitting Gu 2004 1.46 [1.11; 1.93] mitting Yang 1995 1.47 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2016 1.32 [0.99; 1.75] mitting Guo 2007 1.46 [1.11; 1.93] mitting Guo 2007 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93]		i		
mitting Gu 2004 1.46 [1.11; 1.93] mitting Yang 1995 1.47 [1.11; 1.93] mitting Rong 2013 1.46 [1.11; 1.93] mitting Qiu 2008 1.46 [1.11; 1.93] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.46 [1.11; 1.93] mitting Xiang 2010 1.47 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93]				
mitting Yang 1995 1.47 1.11; 1.94 mitting Rong 2013 1.46 1.11; 1.93 mitting Liu 2016 1.32 0.99; 1.75 mitting Qiu 2008 1.46 1.11; 1.93 mitting Guo 2007 1.48 1.12; 1.96 mitting Xiong 2008 1.47 1.11; 1.93 mitting Xiang 2010 1.46 1.11; 1.93 mitting Zhang 2007 1.46 1.11; 1.93 mitting Xiong 2002 1.48 1.12; 1.95 mitting Xiong 2005 1.45 1.10; 1.92 mitting Dai 2000 1.46 1.11; 1.93 ixeed effect model	0 0			
mitting Rong 2013 1.46 [1.11; 1.93] mitting Liu 2016 1.32 [0.99; 1.75] mitting Qiu 2008 1.46 [1.11; 1.93] mitting Qiu 2008 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.93] mitting Ge 2013 1.47 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2002 1.46 [1.11; 1.93] mitting Xiong 2005 1.48 [1.12; 1.96] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Xiong 2000 1.46 [1.11; 1.93] mitting Xiong 2005 1.46 [1.11; 1.93] mitting Dai 2000 1.46 [1.11; 1.93]		i		
mitting Liu 2016 1.32 [0.99, 1.75] mitting Tang 2007 1.46 [1.11; 1.93] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Ge 2013 1.47 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2008 1.44 [1.12; 1.96] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93]	mitting Rong 2013			
mitting Tang 2007 1.46 [1.11; 1.93] mitting Qiu 2008 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Ge 2013 1.47 [1.11; 1.93] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2008 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Liu 2016			
mitting Qiu 2008 1.48 [1.12; 1.96] mitting Guo 2007 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.95] mitting Ge 2013 1.55 [1.17; 2.06] mitting Ziang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2008 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Tang 2007			• • •
mitting Guo 2007 1.48 [1.12; 1.96] mitting Xiong 2008 1.47 [1.11; 1.95] mitting Ge 2013 1.55 [1.17; 2.06] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Wang 2014 1.50 [1.14; 1.99] mitting Xiong 2005 1.48 [1.12; 1.96] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Qiu 2008			
mitting Xiong 2008 1.47 [1.11; 1.95] mitting Ge 2013 1.55 [1.17; 2.06] mitting Xiang 2010 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Wang 2014 1.50 [1.14; 1.99] mitting Xiong 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Guo 2007			
mitting Ge 2013	mitting Xiong 2008			
mitting Luo 2016 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Wang 2014 1.50 [1.14; 1.99] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Ge 2013			
mitting Luo 2016 1.46 [1.11; 1.93] mitting Zhang 2007 1.46 [1.11; 1.93] mitting Wang 2014 1.50 [1.14; 1.99] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Xiang 2010			• • •
mitting Zhang 2007 1.46 [1.11; 1.93] mitting Wang 2014 1.50 [1.14; 1.99] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Luo 2016			
mitting Wang 2014 1.50 [1.14; 1.99] mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Zhang 2007			
mitting Zhang 2002 1.48 [1.12; 1.95] mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Wang 2014		1.50	[1.14; 1.99]
mitting Xiong 2005 1.45 [1.10; 1.92] mitting Dai 2000 1.46 [1.11; 1.93] ixed effect model	mitting Zhang 2002			
xed effect model 1.46 [1.11; 1.93]	mitting Xiong 2005		1.45	[1.10; 1.92]
	mitting Dai 2000		1.46	[1.11; 1.93]
	ixed effect model		1.46	[1.11; 1.93]
0.5 1 2		1	1	,

Study	Odds Ratio	OR	95%-CI
Omitting Singh 2006		- 1.10	[0.90; 1.33]
Omitting Al-Majed 2011		- 1.10	[0.90; 1.33]
Omitting Chaudhary 2012			[0.92; 1.34]
Omitting Errera 2006			[0.88; 1.30]
Omitting Alharbi 2014			[0.88; 1.31]
Omitting Inamdar 2000		- 1.10	[0.91; 1.33]
Omitting Kwon 2007		1.07	[0.88; 1.30]
Omitting Atta 2016			[0.88; 1.28]
Omitting Vauhkonen 1997		- 1.08	[0.89; 1.32]
Omitting Erdogan 2009		1.08	[0.89; 1.31]
Omitting Eto 1986			[0.90; 1.32]
Omitting Guan 2009			[0.91; 1.34]
Omitting Leiva 2005			[0.90; 1.33]
Omitting Liu 2003			[0.88; 1.30]
Omitting Mehmet 2015			[0.96; 1.35]
Omitting Xie 2011			[0.88; 1.30]
Omitting Mustapic 2012			[0.88; 1.30]
Omitting Santos 2002			[0.91; 1.33]
Omitting Kamboh 1995			[0.88; 1.31]
Omitting Ng 2006			[0.90; 1.34]
Omitting Eto 1995			[0.88; 1.31]
Omitting Morbois Trabut 2006			[0.90; 1.33]
Omitting Powell 2003			[0.88; 1.30]
Omitting Guangda 1999			[0.89; 1.31]
Omitting Zhang 2000			[0.89; 1.31]
Omitting Zhang 2003			[0.91; 1.34]
Omitting Sun 2013			[0.90; 1.33]
Omitting Hua 2006			[0.90; 1.33]
Omitting Guo 2003		- 1.08	[0.89; 1.32]
Omitting Liang 2017		- 1.10	[0.91; 1.34]
Omitting Shen 2002			[0.91; 1.34]
Omitting Zheng 1998			[0.89; 1.32]
Omitting Hua 2004			[0.88; 1.30]
Omitting Liu 2014			[0.90; 1.32]
Omitting Xiang 1995			[0.89; 1.31]
Omitting Chen 2006		- 1.09	[0.90; 1.33]
Omitting Xiang 1999		1.08	[0.89; 1.31]
Omitting Shen 2002		1.05	[0.88; 1.27]
Omitting Xiong 2013		- 1.09	[0.89; 1.32]
Omitting Zhou 2005		- 1.08	[0.89; 1.31]
Omitting Xiang 2005		- 1.09	[0.90; 1.32]
Omitting Long 1999			[0.88; 1.29]
Omitting Liang 2005		- 1.09	[0.90; 1.33]
Omitting Gu 2004		- 1.08	[0.89; 1.32]
Omitting Yang 1995			[0.88; 1.30]
Omitting Rong 2013			[0.90; 1.33]
Omitting Liu 2016		- 1.09	[0.90; 1.32]
Omitting Tang 2007		- 1.09	[0.90; 1.32]
Omitting Qiu 2008		- 1.10	[0.91; 1.34]
Omitting Guo 2007		- 1.10	[0.90; 1.33]
Omitting Xiong 2008		- 1.11	[0.91; 1.34]
Omitting Ge 2013		- 1.09	[0.89; 1.33]
Omitting Xiang 2010		- 1.09	[0.90; 1.32]
Omitting Luo 2016		1.08	[0.89; 1.31]
Omitting Zhang 2007		1.08	[0.89; 1.31]
Omitting Wang 2014			[0.91; 1.33]
Omitting Zhang 2002		- 1.10	[0.90; 1.33]
Omitting Xiong 2005		1.08	[0.89; 1.32]
Omitting Dai 2000		- 1.09	[0.90; 1.32]
Random effects model		- 1.09	[0.90; 1.32]

Study	Odds Ratio	OR	95%-CI
Omitting Singh 2006		1.13	[0.88; 1.44]
Omitting Al-Majed 2011			[0.90; 1.46]
Omitting Chaudhary 2012			[0.89; 1.45]
Omitting Errera 2006			[0.88; 1.44]
Omitting Alharbi 2014			[0.87; 1.45]
Omitting Inamdar 2000			[0.90; 1.47]
Omitting Kwon 2007			[0.88; 1.43]
Omitting Atta 2016			[0.82; 1.35]
Omitting Vauhkonen 1997			[0.88; 1.45]
Omitting Erdogan 2009			[0.90; 1.46]
Omitting Eto 1986			[0.90; 1.47]
Omitting Guan 2009			[0.87; 1.42]
Omitting Leiva 2005			[0.90; 1.48]
Omitting Liu 2003			[0.90; 1.47]
Omitting Mehmet 2015			[0.90; 1.46]
Omitting Xie 2011			[0.89; 1.45]
Omitting Mustapic 2012			[0.89; 1.45]
Omitting Santos 2002			[0.91; 1.49]
Omitting Kamboh 1995	1.		[0.88; 1.44]
Omitting Ng 2006			[0.93; 1.53]
Omitting Eto 1995			[0.91; 1.48]
Omitting Morbois Trabut 2006			[0.95; 1.57]
Omitting Powell 2003			[0.89; 1.45]
Omitting Guangda 1999			[0.91; 1.48]
Omitting Zhang 2000			[0.92; 1.50]
Omitting Zhang 2003			[0.89; 1.45]
Omitting Sun 2013			[0.91; 1.49]
Omitting Hua 2006 Omitting Guo 2003			[0.88; 1.44]
Omitting Liang 2017			[0.89; 1.45] [0.89; 1.46]
Omitting Shen 2002			[0.89, 1.40]
Omitting Zheng 1998			[0.89; 1.46]
Omitting Hua 2004			[0.88; 1.40]
Omitting Liu 2014			[0.90; 1.44]
Omitting Xiang 1995			[0.90; 1.40]
Omitting Chen 2006			[0.90; 1.48]
Omitting Xiang 1999			[0.90; 1.47]
Omitting Shen 2002			[0.88; 1.44]
Omitting Xiong 2013			[0.90; 1.48]
Omitting Zhou 2005			[0.89; 1.45]
Omitting Xiang 2005			[0.90; 1.46]
Omitting Long 1999			[0.88; 1.44]
Omitting Liang 2005			[0.88; 1.44]
Omitting Gu 2004			[0.88; 1.45]
Omitting Yang 1995			[0.91; 1.48]
Omitting Rong 2013	- 		[0.90; 1.46]
Omitting Liu 2016			[0.90; 1.46]
Omitting Tang 2007			[0.89; 1.45]
Omitting Qiu 2008			[0.89; 1.46]
Omitting Guo 2007			[0.89; 1.45]
Omitting Xiong 2008			[0.90; 1.48]
Omitting Ge 2013			[0.93; 1.53]
Omitting Xiang 2010			[0.88; 1.44]
Omitting Luo 2016			[0.91; 1.48]
Omitting Zhang 2007			[0.91; 1.48]
Omitting Wang 2014			[0.91; 1.50]
Omitting Zhang 2002			[0.90; 1.47]
Omitting Xiong 2005			[0.90; 1.46]
Omitting Dai 2000			[0.90; 1.46]
	1		
Fixed effect model		1.15	[0.90; 1.46]

Study	Odds	Ratio	OR	95%-CI
Omitting Singh 2006			1.12	[1.02; 1.23]
Omitting Al-Majed 2011			1.12	[1.01; 1.23]
Omitting Chaudhary 2012			1.10	[1.00; 1.21]
Omitting Errera 2006			1.12	[1.02; 1.23]
Omitting Alharbi 2014			1.13	[1.03; 1.25]
Omitting Inamdar 2000		-	1.11	[1.00; 1.22]
Omitting Kwon 2007				[1.00; 1.22]
Omitting Atta 2016		-		[1.00; 1.21]
Omitting Vauhkonen 1997				[1.01; 1.22]
Omitting Erdogan 2009				[1.00; 1.22]
Omitting Eto 1986				[1.00; 1.21]
Omitting Guan 2009				[1.00; 1.21]
Omitting Leiva 2005				[1.02; 1.24]
Omitting Liu 2003				[1.00; 1.22]
Omitting Mehmet 2015				[1.02; 1.23]
Omitting Xie 2011		2		[1.00; 1.21]
Omitting Mustapic 2012		1		[1.01; 1.23]
Omitting Santos 2002				[1.02; 1.23]
Omitting Kamboh 1995				[1.00; 1.22]
Omitting Ng 2006		1		[1.01; 1.22]
Omitting Eto 1995				[1.00; 1.23]
Omitting Morbois Trabut 2006				[1.02; 1.24]
Omitting Powell 2003				[1.01; 1.23]
Omitting Guangda 1999				[1.01; 1.22]
Omitting Zhang 2000				[1.00; 1.22]
Omitting Zhang 2003				[1.01; 1.22]
Omitting Sun 2013				[1.01; 1.22]
Omitting Hua 2006				[1.00; 1.21]
Omitting Guo 2003				[1.00; 1.21]
Omitting Liang 2017				[1.00; 1.21]
Omitting Shen 2002				[1.02; 1.23]
Omitting Zheng 1998				[1.01; 1.22]
Omitting Hua 2004 Omitting Liu 2014	_			[1.01; 1.22] [0.99; 1.20]
Omitting Xiang 1995				[1.00; 1.21]
Omitting Chen 2006		<u> </u>		[1.00; 1.21]
Omitting Xiang 1999				[1.00; 1.22]
Omitting Shen 2002	_	- 		[0.99; 1.20]
Omitting Xiong 2013				[1.00; 1.21]
Omitting Zhou 2005				[1.01; 1.23]
Omitting Xiang 2005				[1.00; 1.22]
Omitting Long 1999				[0.99; 1.21]
Omitting Liang 2005				[1.00; 1.21]
Omitting Gu 2004				[1.00; 1.21]
Omitting Yang 1995				[1.00; 1.21]
Omitting Rong 2013				[1.00; 1.22]
Omitting Liu 2016	_			[0.98; 1.19]
Omitting Tang 2007				[1.00; 1.22]
Omitting Qiu 2008				[1.01; 1.22]
Omitting Guo 2007				[1.01; 1.22]
Omitting Xiong 2008				[1.02; 1.24]
Omitting Ge 2013	_	-		[0.98; 1.19]
Omitting Xiang 2010				[1.01; 1.22]
Omitting Luo 2016				[1.01; 1.22]
Omitting Zhang 2007				[1.01; 1.22]
Omitting Wang 2014		<u> </u>		[1.00; 1.22]
Omitting Zhang 2002				[1.00; 1.22]
Omitting Xiong 2005				[1.01; 1.22]
Omitting Dai 2000				[1.01; 1.22]
Fixed effect model			1.11	[1.01; 1.22]
		1 · · · · · · · · · · · · · · · · · · ·		
0.8		1 1.2		

Study		Odds I	Ratio	OR	95%-C
Omitting Singl	h 2006			1.75	[1.36; 2.25]
Omitting Al-Ma	ajed 2011		-	1.62	[1.25; 2.08]
Omitting Chau	idhary 2012			1.68	[1.31; 2.17]
Omitting Errer	a 2006		i	1.71	[1.33; 2.19]
Omitting Alhar	bi 2014				[1.09; 1.88]
Omitting Inamo	dar 2000				[1.37; 2.29]
Omitting Kwor					[1.33; 2.20]
Omitting Atta 2					[1.33; 2.19]
Omitting Vauh					[1.30; 2.16]
Omitting Erdo					[1.33; 2.19]
Omitting Eto 1					[1.35; 2.24]
Omitting Guan					[1.34; 2.21]
Omitting Leiva					[1.33; 2.19]
Omitting Liu 2					[1.33; 2.19]
Omitting Mehr					[1.33; 2.19]
Omitting Xie 2					[1.27; 2.10]
Omitting Must			-		[1.31; 2.17]
Omitting Santo			- <u>-</u>		[1.33; 2.20]
Omitting Kaml					[1.37; 2.28]
Omitting Ng 20					[1.32; 2.18]
Omitting Eto 1			<u> </u>		[1.33; 2.23]
	ois Trabut 2006				[1.41; 2.36]
Omitting Powe					[1.31; 2.17]
Omitting Guan					[1.35; 2.23]
Omitting Zhan	9				[1.33; 2.19]
Omitting Zhan	•				[1.32; 2.19]
Omitting Sun 2	0				[1.36; 2.25]
Omitting Hua 2					[1.35; 2.23]
Omitting Guo					[1.32; 2.18]
Omitting Liand			- i		[1.32; 2.17]
Omitting Shen					[1.33; 2.21]
Omitting Zhen					[1.33; 2.19]
Omitting Hua	0		_		1.34; 2.23
Omitting Liu 2			i	1.72	[1.34; 2.21]
Omitting Xiang					[1.33; 2.20]
Omitting Chen	2006				[1.33; 2.20]
Omitting Xiang	g 1999			1.71	[1.33; 2.20]
Omitting Shen	2002			1.71	[1.33; 2.19]
Omitting Xiong	g 2013			1.72	[1.34; 2.21]
Omitting Zhou	2005		_	1.71	[1.33; 2.19]
Omitting Xiang			<u> </u>		[1.33; 2.21]
Omitting Long					[1.31; 2.17]
Omitting Liang					[1.32; 2.18]
Omitting Gu 20					[1.32; 2.18]
Omitting Yang					[1.35; 2.23]
Omitting Rong					[1.33; 2.19]
Omitting Liu 2					[1.34; 2.22]
Omitting Tang					[1.33; 2.19]
Omitting Qiu 2					[1.33; 2.21]
Omitting Guo					[1.32; 2.19]
Omitting Xion			•		[1.25; 2.10]
Omitting Ge 2				1.76	[1.37; 2.27]
Omitting Xiang			<u>.</u>		[1.33; 2.19]
Omitting Luo 2					[1.32; 2.18]
Omitting Zhan			<u> </u>		[1.32; 2.18]
Omitting Wang					[1.37; 2.28]
Omitting Zhan	0				[1.33; 2.20]
Omitting Xion	-				[1.32; 2.18]
Omitting Dai 2	2000		-	1.71	[1.33; 2.20]
Juniany Dal 2					
0	nodel		-== <u></u>	171	1 33 2 10
Fixed effect r	nodel			1.71	[1.33; 2.19]

	Experim Events			Total	Odds Ratio	OR	95%-C	Weight	Study	Experin			Total	Odds Ratio	OR	95%-CI W
ilan									Other							
ngh 2006	-8	173	. 9	177		0.91	0.34, 2.40	1.5%	Albarbi 2014	109	750	83	829	-	1.53	[1.13: 2.07]
imdar 2000	15	73	13	50		0.74	0.31; 1.72	1,7%	Inamdar 2000	15	73	13	50		0.74	0.31, 1.72]
von 2007	16	169	5	162		3.28	[1.17, 9.18]	1.4%	Eto 1986		185	13	199	-21	0.73	[0.31; 1.75]
o 1986	9	185	13	199		0.73	0.31; 1.75	1.7%		55	393	14	210	1	2.28	[1.23, 4.20]
an 2009	55	393	14	210		2.28	1.23, 4.20	2.2%	Guan 2009	37	356	52	832		1.74	
2003	11	146	4	147		2.91	0.91; 9.37	1.2%	Mustapic 2012					1 million		
2011	17	65	7	31		1.21	0.44; 3.33	1.5%	Kamboh 1995	28	201 722	119 40	1121 375		1.36	[0.88, 2.12] [0.56, 1.28]
2006	66	722	-40	375	*	0.84	0.56, 1.28	2.7%	Ng 2006							
1995	28	492	43	1017		1.37	0.84; 2.23	2.5%	Eto 1995	28	492	43	1017	E	1.37	[0.84; 2.23]
angda 1999	16	168	11	131	-6-	1.15	0.51; 2.57	1.8%	Xiang 1999	21	229	5	91	Two-	1.74	[0.63, 4.75]
ing 2000	7	120	8	131		0.95	0.33, 2.71	1.4%	Xiang 2005	13	173	13	168		0.97	[0.44, 2.16]
ing 2003	6	133	26	348		0.59	0.24; 1.46	1.6%	Guo 2007	4	70	7	72		0.56	[0.16; 2.01]
n 2013	48	465	17	145	-	0.87	0.48, 1.56	2.3%	Xiong 2008	28	553	63	916	-		[0.46, 1.14]
a 2006	12	172	. 9	179	-le-	1.42	0.58 3.45	1.7%	Random effects model		4197		5880	P	1.19	[0.94; 1.50] 2
0 2003	6	65	6	95		1.51	0.46, 4.90	1.2%	Haterogeneity I ² = 50%, x ¹	= 0.0743	p = 0.0	2.				
2005	6	78	73	702		0.72	10.30, 1.71	1.7%								
ng 2017									PCR-RELP							
en 2002	11	197	18	196		0.58	0.27, 1.27	1.9%	Singh 2006	8	173	.9	177		0.91	[0.34; 2.40]
ng 1998	21	210	10	114		1.16	0.52, 2.55	1.9%	Al-Majed 2011	18	172	8	112	-1	1.52	[0.64, 3.62]
2004	11	70	5	107			[1.26; 11.48]	1,3%	Chaudhary 2012	5	271	16	275		0.30	[0.11, 0.84]
2014	20	399	-4	571			2.54; 22.06	1,4%	Errera 2006	14	174	7	191		2.30	[0.91; 5.84]
ng 1995	20	218	5	91		1.74	0.63, 4.78	1.5%	Kwon 2007	16	169	5	162		3.28	[1.17, 9.18]
n 2006	20	183	22	194	+	0.96	0.50, 1.82	2.2%	Atta 2016	24	69	6	78			[2.43; 16.87]
ng 1999	21	229	5	91		1.74	0.63, 4.75	1.5%	Vauhkonen 1997	10	133	11	205	-16-		[0.59; 3.48]
n 2002	19	52	10	87			11.86: 10.56	1.7%	Erdogan 2009	4	100	11	63			[0.31, 111.90]
ig 2013	16	206	17	196	-	0.89	10.43: 1.81	2.0%	Erdogan 2009	16	337		236	1	0.86	
u 2005	14	127	13	125	-	1.07	10.48 2.37	1.8%	Leiva 2005			13		1 -		[0.40; 1.81]
ng 2005	13	173	13	168		0.97	0.44, 2.16	1.8%	Liu 2003	11	146		147	-	2.91	[0.91; 9.37]
g 1999	18	117	22	254	Terr	1.92	10.99 3.73	2.1%	Mehmet 2015	6	187	22	91		0.10	[0.04; 0.27]
		262	14	170	la.	1.07	10.54 2.15	2.1%	Xie 2011	17	65	7	31		1.21	[0.44; 3.33]
ng 2005	23				2				Santos 2002	0	67	5	35		0.04	[0.00; 0.77]
2004	12	114	14	170		1.31	0.58; 2.95	1.8%	Morbois Trabut 2006	36	386	95	841		0.81	[0.54; 1.21]
g 1995	20	218	6	90		1.41	0.55; 3.65	1.6%	Powell 2003	31	258	12	154	+	1.62	[0.80; 3.25]
g 2013	- 4	46	B	75		0.80	0.23, 2.81	1,1%	Guangda 1999	16	168	11	131	-#-	1.15	[0.51; 2.57]
2016	28	557	- 4	575		7.56	2.63; 21.68)	1.4%	Zhang 2000	7	120	8	131		0.95	[0.33: 2.71]
g 2007	3	70	4	106		1.14	0.25; 5.26	0.9%	Zhang 2003	6	133	26	348		0.59	[0.24: 1.46]
2008	17	235	22	203		0.64	0.33, 1.24	2.1%	Sun 2013	48	465	17	145		0.87	[0.48, 1.56]
2007	4	70	7	72		0.56	0.16, 2.01	1.1%	Hua 2006	12	172	9	179	-1	1.42	[0.58: 3.45]
ng 2008	28	553	63	916		0.72	0.46: 1.14	2.6%	Guo 2003	6	65	6	95		1.51	[0.46, 4.90]
2013	43	323	64	357	-	0.70	0.46, 1.07	2.6%	Liang 2017	6	78	73	702		0.72	[0.30, 1.71]
ng 2010	6	74	13	185		1.17	0.43; 3.20	1.5%	Shen 2002	11	197	18	196		0.58	10.27, 1.27]
2016	4	65	5	90		1.11	0.29. 4.32	1.0%	Zhang 100k	21	210	10	114	-	1.16	10.52 2.551
ng 2007	2	71	3	89	1	0.83	10 14 5.11	0.7%	Zheng 1998 Hua 2004	11	70	5	107			[1.26: 11.48]
	6	89	15	86		0.34	0.13 0.93	1.5%								
ng 2014					-				Liu 2014	20	399	-4	571			[2.54; 22.06]
ng 2002	- 4	98	11	139		0.50	0.15; 1.60	1.2%	Xiang 1995	20	218	5	91	14-	1.74	[0.63, 4.78]
ng 2005	8	59	5	57	-1	1.63	0.50; 5.32	1.2%	Chen 2006	20	183	22	194	-	0.96	[0.50; 1.82]
2000	5	59	15	166			0.32, 2.69	1.4%	Shen 2002	19	52	10	87			[1.86; 10.56]
dom effects model		6763		9839		2.36	[0.97; 1.38]	-75.1%	Xiong 2013	16	206	17	196		0.89	[0.43; 1.81]
required $I'' = 60\%, t''$	= 0.1634,	p < 0.01							Zhou 2005	14	127	13	125		1.07	[0.48, 2.37]
									Long 1999	18	117	22	254	1.00	1.92	[0.99, 3.73]
er									Liang 2005	23	262	14	170	-+-	1.07	[0.54, 2.15]
fajed 2011	18	172	8	112	-1	1.52	10.64; 3.62	1.7%	Gu 2004	12	114	14	170	-10-	1.31	[0.58, 2.95]
udhary 2012	5	271	16	275		0.30	0.11, 0.84	1.5%	Yang 1995	20	218	6	90		1.41	[0.55; 3.65]
ra 2006	14	174	7	191		2.30	0.91; 5.84	1.6%	Rong 2013	4	46	8	75		0.80	[0.23, 2.81]
rbi 2014	109	750	83	829	len.		11.13 2.07	2.9%	Liu 2016	28	557	4	575		7.56	[2.63: 21.68]
	24	69	6	78	[-m		2 43; 16.87		Tang 2007	20	70	4	106	_	1.14	[0.25, 5.26]
2016								1.5%	Qiu 2008	17	235	22	203		0.64	10.33 1.24]
hkonen 1997	10	133	11	205	-		0.59; 3.48	1.7%				64				
ogan 2009	4	100	0	63			0.31, 111.90	0.3%	Ge 2013	43	323		357		0.70	[0.46, 1.07]
a 2005	16	337	13	236	-		0.40; 1.81	1.9%	Xiang 2010	6	74	13	185	-	1.17	[0.43; 3.20]
wnet 2015	6	187	22	91	-#-	0.10	0.04; 0.27	1.6%	Luo 2016	4	65	5	90		1.11	[0.29, 4.32]
Mapic 2012	37	356	-52	832		1.74	1 12, 2.70	2.6%	Zhang 2007	2	71	3	89		0.83	[0.14, 5.11]
tos 2002	0	67	5	35 -		0.04	0.00; 0.77	0.3%	Wang 2014	6	89	15	86		0.34	[0.13; 0.93]
nboh 1995	28	201	119	1121	-	1.36	0.88, 2.12	2.6%	Zhang 2002	4	98	11	139		0.50	[0.15; 1.60]
rbois Trabut 2006	36	386	95	841	and the	0.81	0.54 1.21	2.7%	Xiong 2005	8	59	5	57		1.63	[0.50, 5.32]
well 2003	31	258	12	154	- Int-	1.62	0.80; 3.25	2.0%	Dai 2000	5	59	15	166		0.93	[0.32, 2.69]
ndom effects model		3461	14	6063	E.		10.00, 3.25		Random effects model		8027		9022	Þ		
erogeneity /* = 79%; e ² :	0.4058.				F	1.12	berner manal		Heterogeneity: $l^2 = 0.4%$, τ^2	= 0.3388,		1				
ndom effects model		2224	3	14902		1.16	[0.98; 1.37]	100.0%	Random effects model		12224		14902		1.16	[0.98; 1.37] 10

В

1.52 [0.64, 3.62] 1.7% 1.53 [1.13, 2.07] 2.9% 5.92 [0.31, 111.90] 0.3% 0.10 [0.04, 0.27] 1.6% 0.95 [0.33, 2.71] 1.4% 7.46 [2.54, 2.206] 1.4% 1.41 [0.55, 3.65] 1.6% 7.56 [2.63, 21.68] 1.4% 1.11 [0.29, 4.32] 1.0% 0.33 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.64; 2.244] 15.4%	Asian Singh 2006 Inamdar 2000 Kwon 2007 Eto 1986 Guan 2009 Lui 2003 Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2000	32 173 11 67 13 21 53 335	7 81 9 19 5 75 10 90 32 120 4 68 3 11 32 174	*	0.54 [0.15; 1.93] 0.52 [0.15; 1.79] 2.89 [0.98; 8.56] 0.62 [0.36; 2.56] 0.62 [0.36; 1.09] 3.14 [0.95; 10.43]
153 [113] 207] 29% 592 [0.31, 11190] 0.3% 0.10 [0.04, 0.27] 1.6% 0.95 [0.33, 271] 1.6% 748 [2.54] 22.06] 1.4% 1.41 [0.55, 3.65] 1.6% 756 [2.03, 21.68] 1.4% 1.11 [0.29, 4.32] 1.0% 0.83 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.84; 2.54] 15.4%	Singh 2006 Inamdar 2000 Kwon 2007 Elo 1986 Guan 2009 Liu 2003 Xie 2011 Ng 2006 Elo 1995 Guangda 1999 Zhang 2000 Zhang 2003	8 25 13 76 9 82 32 173 11 67 13 21 53 335 25 217	9 19 5 75 10 90 32 120 4 68 3 11 32 174	*	0.52 [0.15, 1.79] 2.89 [0.98, 8.56] 0.99 [0.38, 2.56] 0.62 [0.36, 1.09]
153 [113] 207] 29% 592 [0.31, 11190] 0.3% 0.10 [0.04, 0.27] 1.6% 0.95 [0.33, 271] 1.6% 748 [2.54] 22.06] 1.4% 1.41 [0.55, 3.65] 1.6% 756 [2.03, 21.68] 1.4% 1.11 [0.29, 4.32] 1.0% 0.83 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.84; 2.54] 15.4%	Kwon 2007 Elo 1966 Guan 2009 Liu 2003 Xie 2011 Ng 2006 Elo 1995 Guangda 1999 Zhang 2000 Zhang 2003	13 76 9 82 32 173 11 67 13 21 53 335 25 217	5 75 10 90 32 120 4 68 3 11 32 174	*	2.89 [0.98; 8.56] 0.99 [0.38; 2.56] 0.62 [0.36; 1.09]
592 [0 31; 111 90] 0.3% 0.10 [0.04, 0.27] 1.6% 0.95 [0.33, 2.71] 1.4% 7.46 [2.54, 22.06] 1.4% 1.41 [0.55; 3.65] 1.6% 7.56 [2.63, 21.68] 1.4% 1.11 [0.29, 4.32] 1.6% 0.83 [0.13, 0.93] 1.5% 0.34 [0.13, 0.93] 1.5% 1.27 [0.84; 2.54] 15.4%	Eto 1986 Guan 2009 Lui 2003 Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	9 82 32 173 11 67 13 21 53 335 25 217	10 90 32 120 4 68 3 11 32 174	*	0.99 [0.38; 2.56] 0.62 [0.36; 1.09]
0.10 [0.04, 0.27] 16% 0.95 [0.33, 2.71] 14% 1.41 [0.55, 3.65] 16% 7.56 [2.63, 2.168] 14% 1.11 [0.29, 4.32] 1.0% 0.83 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.64; 2.54] 15.4%	Eto 1986 Guan 2009 Lui 2003 Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	9 82 32 173 11 67 13 21 53 335 25 217	32 120 4 68 3 11 32 174	*	0.62 [0.36; 1.09]
0.95 10.33, 271] 1.4% 7.48 12.54, 22.06] 1.4% 1.41 10.55, 3.65] 1.6% 7.56 12.03, 21.68] 1.4% 1.11 10.29, 4.32] 1.0% 0.83 10.14, 5.11] 0.7% 0.34 10.13, 0.93] 1.5% 1.27 10.84; 2.54] 15.4%	Guan 2009 Liu 2003 Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	11 67 13 21 53 335 25 217	4 68 3 11 32 174	**	0.62 [0.36; 1.09]
748 [2.54; 22.06] 1.4% 1.41 [0.55, 3.65] 1.6% 7.56 [2.63, 21.68] 1.4% 1.11 [0.29, 4.32] 1.0% 0.83 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.64; 2.54] 15.4%	Liu 2003 Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	11 67 13 21 53 335 25 217	4 68 3 11 32 174		3 14 10 95 10 491
141 [055, 365] 16% 756 [2.03, 2168] 14% 111 [029, 432] 10% 083 [014, 5.11] 07% 0.34 [013, 093] 15% 1.27 [0.64; 2.54] 15.4%	Xie 2011 Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	13 21 53 335 25 217	3 11 32 174		
7.50 (2.03, 21.68) 1.4% 1.11 (0.29, 4.32) 1.0% 0.83 (0.14, 5.11) 0.7% 0.34 (0.13, 0.93) 1.5% 1.27 (0.84; 2.54) 15.4%	Ng 2006 Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	53 335 25 217	32 174		4.33 10.88, 21.301
1,11 [029; 4.32] 1.0% 0.83 [0.14, 5.11] 0.7% 0.34 [0.13, 0.93] 1.5% 1.27 [0.84; 2.54] 15.4%	Eto 1995 Guangda 1999 Zhang 2000 Zhang 2003	25 217			0.83 10.51: 1.351
083 [014 5.11] 0.7% 0.34 [013 093] 1.5% 1.27 [0.64; 2.54] 15.4%	Guangda 1999 Zhang 2000 Zhang 2003		35 449		1.54 10.90 2.651
0.34 [0.13; 0.93] 1.5% 1.27 [0.84; 2.54] 15.4%	Zhang 2000 Zhang 2003		7 60		1.49 [0.56; 4.00]
1.27 [0.84; 2.84] 16.4%	Zhang 2003	7 57	5 61		1.57 10.47; 5.25]
			23 157	- 100	0.53 [0.19; 1.46]
	Sun 2013		12 67	-1	0.92 10.45: 1.881
	Hua 2006	4 72	7 82		0.63 [0.18: 2.25]
		4 27	5 44		
	Guo 2003			~	
0.91 [0.34, 2.40] 1.5%	Liang 2017				0.45 [0.13, 1.53]
0.30 [0.11; 0.84] 1.5%	Shen 2002		12 86		0.51 [0.19, 1.37]
2.30 [0.91; 5.84] 1.6%	Zheng 1998	16 97	8 53	T	1.11 [0.44; 2.80]
0.74 0.31; 1.72 1.7%	Hua 2004	7 31	4 49		3.28 [0.87; 12.34]
3.28 [1.17, 9.18] 1.4%	Liu 2014	0 174	0 272		
6.40 [2.43; 16.87] 1.5%	Xiang 1995	16 94	4 42		1.95 [0.61; 6.23]
1.43 [0.59; 3.48] 1.7%	Chen 2006		18 90	-	0.86 [0.40; 1.83]
0.73 0.31, 1.75 1.7%	Xiang 1999	14 99	4 42		1.56 [0.48; 5.07]
228 1123 420 22%	Shen 2002	11 15	6 37		14.21 [3.37; 59.97]
0.86 10.40; 1.811 1.9%	Xiong 2013		13 85		1.15 [0.51; 2.60]
2.91 [0.91; 9.37] 1.2%	Zhou 2005	13 60	9 55		1.41 [0.55; 3.63]
1.21 10.44, 3.331 1.5%	Xiang 2005	10 75	10 75		1.00 [0.39; 2.56]
1.74 11.12 2.701 2.6%	Long 1999	15 51	18 119	-98-	2.34 [1.07; 5.12]
0.04 [0.00; 0.77] 0.3%	Liang 2005		12 80		0.94 [0.42; 2.10]
136 [0.88, 2.12] 2.6%	Gu 2004	9 52	12 80		1.19 [0.46; 3.05]
0.84 [0.56, 1.28] 2.7%	Yang 1995	16 94	3 41		2.60 [0.71; 9.46]
1.37 [0.84; 2.23] 2.5%	Rong 2013	4 22	8 37		0.81 [0.21; 3.07]
	Liu 2016	0 243	0 274		eres fearst erest
	Tang 2007	1 29	3 46		0.51 [0.05; 5.17]
1.62 [0.80, 3.25] 2.0%	Qiu 2008		18 94		0.62 [0.29, 1.33]
1.15 [0.51, 2.57] 1.8%	Guo 2007	1 30	4 31		0.23 [0.02, 2.22]
0.59 [0.24, 1.46] 1.6%	Xiong 2008		48 407		0.59 [0.33; 1.03]
0.87 [0.48, 1.56] 2.3%				- and	
1.42 [0.58; 3.45] 1.7%	Ge 2013			7	1.05 [0.61; 1.79]
1.51 [0.46, 4.90] 1.2%	Xiang 2010		13 83	1	0.96 [0.31; 2.95]
0.72 [0.30; 1.71] 1.7%	Luo 2016	3 31	2 40		2.04 [0.32; 13.01]
0.58 [0.27; 1.27] 1.9%	Zhang 2007	2 34	1 40		2.44 [0.21; 28.12]
1.16 [0.52; 2.55] 1.9%	Wang 2014	4 37	7 35		0.48 [0.13; 1.83]
3.80 [1.26; 11.48] 1.3%	Zhang 2002	3 43	7 62		0.59 [0.14; 2.42]
1.74 [0.63; 4.78] 1.5%	Xiong 2005	5 27	4 27		1.31 [0.31; 5.51]
0.96 [0.50; 1.82] 2.2%	Dai 2000		14 78		0.99 [0.32; 3.07]
1.74 [0.63] 4.75] 1.5%	Random effects model		4485	Ŷ	1.07 [0.89; 1.28]
443 [1.86] 10.56] 1.7%	Heterogeneity, t ² = 30%, 1	* = 0.0993, p = 0.03			
0.89 [0.43, 1.81] 2.0%				1	
1.07 10.48 2.371 1.8%	Other				
0.97 10.44 2.161 1.8%	Al-Majed 2011	2 75	3 49		0.42 [0.07; 2.61]
192 0.99 373 2.1%	Chaudhary 2012		12 125		0.16 [0.04; 0.74]
107 10.54 2.15 2.15	Errera 2006	13 81	7 84		2.10 [0.79; 5.58]
131 1058 2951 18%	Alharbi 2014		18 352	-	1.66 [0.89; 3.10]
	Atta 2016	12 24	3 33		10.00 [2.39, 41.84]
	Vauhkonen 1997	7 55	9 85		1.23 [0.43; 3.53]
1.14 [0.25; 5.26] 0.9%	Erdogan 2009	4 44	0 28		6.33 [0.33, 122.32]
0.64 [0.33, 1.24] 2.1%	Leiva 2005	12 145	10 97	_	0.78 [0.33; 1.90]
+ 0.56 [0.16, 2.01] 1.1%	Mehmet 2015		22 41		0.06 [0.02; 0.18]
0.72 [0.46, 1.14] 2.6%				-	
0.70 [0.46; 1.07] 2.6%	Mustapic 2012		48 376	100	1.88 [1.16, 3.05]
				_	0.06 [0.00; 1.46]
				Ten	1.61 [0.95; 2.74]
1.63 [0.50, 5.32] 1.2%				-	0.90 [0.56; 1.43]
0.93 (0.32, 2.69) 1.4%	Powell 2003	22 111	7 64	+	2.01 [0.81; 5.02]
1.14 [0.90; 1.34] 84.6%			2181	Ŷ	1.02 [0.60; 1.74]
1.16 [0.98; 1.37] 100.0%	Random effects model	5392	6666		1.09 [0.90; 1.32] 10
1.4.1	1.17 [0.43, 3.20] 1.5% 0.50 [0.15, 1.60] 1.2% 1.63 [0.50, 2.32] 1.2% 0.93 [0.32, 2.69] 1.4% 1.14 [0.99; 1.54] 84.6%	117 10.43, 3.201 1.5% Santos 2002 0.50 10.15, 1.601 1.2% Kamboh 1995 0.93 10.52, 2.691 1.4% Powel 2003 0.93 10.32, 2.691 1.4% Powel 2003 1.16 10.98; 1.34] 84.6% Random effects model Heterogenety, t ² = 70%, theterogenety, t ² = 55%, theterogenety, t ³ = 50\%,	1.17 [0.43, 3.20] 1.5% Sartos 2002 0 32 0.50 [0.15, 160] 1.2% Kamboh 1995 2.3 85 1.63 [0.50, 5.32] 1.2% Morbois Trabut 2006 31 174 0.93 [0.32, 269] 1.4% Powel 2003 22 111 1.14 [0.90; 1.34] 84.6% Random effects model 1510 1.16 [0.96; 1.37] 100.0% Random effects model 5392 Heterogenetry: I ² = 56%, x ² = 0.2568, p < 0.01	1.17 [0.43, 3.20] 1.5% Sartos 2002 0 32 2 12 0.50 [0.15, 160] 1.2% Kamboh 1995 2.3 85 88 470 0.93 [0.32, 2.69] 1.4% Powel 2003 22 111 7 64 1.16 [0.96; 1.37] 100.0% Random effects model 1010 2181 1 1.16 [0.96; 1.37] 100.0% Random effects model 5392 6666	117 10.43, 3.201 1.5% Santos 2002 0 32 2 12 0.50 10.15, 1601 1.2% Kamboh 1995 2.3 85 88 470 0.93 10.32, 2.691 1.4% Powell 2003 22 111 7 64 1.14 10.98; 1.34] 84.6% Powell 2003 2181 44 1.16 10.98; 1.37] 100.0% Random effects model 5392 6666 9 1.16 10.98; 1.37] 100.0% Random effects model 5392 6666 9

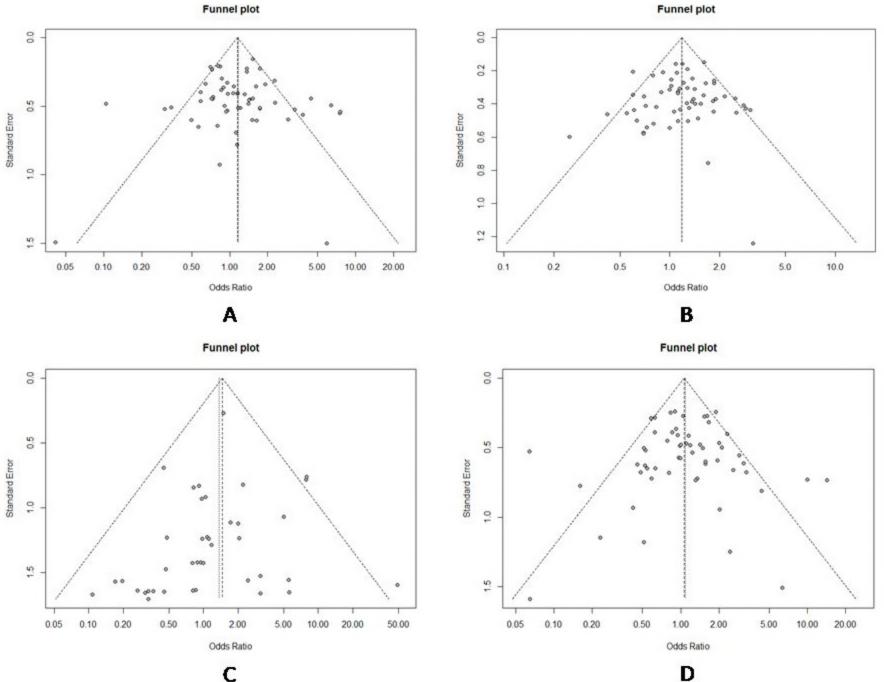
Α

В

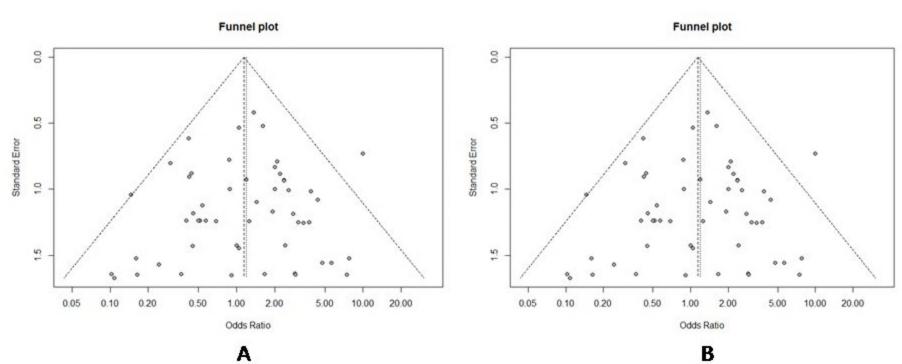
Study	Experimenta Events Tota		Control Its Total	Odds Ratio	OR	95%-CI	Weight	Study	Experimental Events Total Eve	Control nts Total	Odds Ratio	OR	95%-C	CI Weight
Other								N						
Alharbi 2014	26 31		18 352		1.66			Al-Majed 2011	2 75	3 49			0.07; 2.61	
Inamdar 2000	8 2		9 19		0.52	[0.15; 1.79]		Alharbi 2014	26 316	18 352			[0.89; 3.10	
Eto 1986	9 8 32 17		10 90 32 120		0.99	[0.38, 2.56]		Erdogan 2009	4 44	0 28			0.33, 122.32	
Guan 2009 Mustapic 2012	32 17		32 120 48 376	-	0.62	[0.36; 1.09] [1.16; 3.05]	2.8%	Mehmet 2015	6 87	22 41			0.02, 0.18	
Kamboh 1995	23 8		48 470	and the second sec	1.61	[0.95; 2.74]	2.9%	Zhang 2000	7 57 0 174	5 61 0 272	-	1.57	10.47, 5.25	5 1.5%
Ng 2006	53 33		32 174	100	0.83	[0.51; 1.35]	3.0%	Liu 2014 Yang 1995	16 94	3 41	-	2.00	10.71; 9.46	
Eto 1995	25 21		35 449	1	1.54	[0.90, 2.65]	2.9%	Liu 2016	0 243	0 274	-	2.00	lour aveo	0.0%
Xiang 1999	14 9		4 42		1.56	10.48; 5.07]	1.6%	Luo 2016	3 31	2 40		2.04	10.32 13.01	
Xiang 2005	10 7		10 75	-	1.00	0.39, 2.56	2.0%	Zhang 2007	2 34	1 40			[0.21; 28.12	
Guo 2007	1 3		4 31		0.23	0.02; 2.22]	0.6%	Wang 2014	4 37	7 35			10.13: 1.83	
Xiong 2008	18 24		48 407		0.59	0.33, 1.03		Random effects mod		1233	1		10.36; 2.66	
Random effects model Heterogenety: 12 = 53%, s	184	7	2605	*		[0.79; 1.44]		Heterogeneity: $l^2 = 70\%$			T		ferrer erre	4
	- 0.1314, p							Y						
PCR-RELP Simp 2008	4 8	2	7 81	-	0.54	10.15 1.000	1.4%	Singh 2006	4 82	7 81			10.15; 1.93	
Singh 2006 Al-Majed 2011	4 8		7 81 3 49		0.54	[0.15; 1.93]		Chaudhary 2012	2 119	12 125			10.04, 0.74	
								Errera 2006	13 81	7 84	-1		[0.79, 5.58	
Chaudhary 2012			12 125 7 84	-	0.16 2.10	0.04; 0.74]	1.1%	Inamdar 2000	8 25	9 19			[0.15; 1.79	
Errera 2006 Kwon 2007	13 8 13 7		5 75	100	2.89	[0.79; 5.58] [0.98; 8.56]	1.9%	Kwon 2007	13 76	5 75			[0.96; 8.56	
Atta 2016	12 2		3 33			[2.39; 41.84]		Atta 2016 Vauhkonen 1997	12 24 7 55	3 33			[2.39, 41.84 (0.43; 3.53	
Vauhkonen 1997	7 5		9 85			[0.43; 3.53]	1.8%				5			
Erdogan 2009	4 4		0 28			0.33, 122.32	0.4%	Eto 1986 Guan 2009	9 82 32 173	10 90 32 120			[0.38; 2.56 [0.36; 1.09	
Leiva 2005	12 14		10 97			[0.33; 1.90]		Leiva 2005	12 145	10 97			10.36, 1.09	
Liu 2003	11 6		4 68		3.14	[0.95; 10.43]	1.5%	Liu 2003	11 67	4 68	7 -		10.95; 10.43	
Mehmet 2015	6 8		22 41			10.02; 0.18]	1.8%	Xie 2011	13 21	3 11			10.88; 21.30	
Xie 2011	13 2		3 11			[0.88; 21.30]	1.0%	Mustapic 2012	35 162	48 376	-		[1.16. 3.05	
Santos 2002	0 3		2 12 -		0.06	10.00; 1.46]	0.3%	Santos 2002	0 32	2 12 -			10.00, 1.46	
Morbois Trabut 2006	31 17	4	71 365	*	0.90	[0.56; 1.43]	3.1%	Kamboh 1995		88 470	-		10.95, 2.74	
Powell 2003	22 11	1	7 64		2.01	[0.81; 5.02]	2.0%	Ng 2006		32 174			10.51; 1.35	
Guangda 1999	13 7	9	7 60		1.49	[0.56; 4.00]	1.9%	Eto 1995		35 449			0.90, 2.65	
Zhang 2000	7 5		5 61		1.57	[0.47; 5.25]	1.5%	Morbois Trabut 2006		71 385	*		10.56; 1.43	
Zhang 2003	5 6		23 157		0.53	[0.19; 1.46]	1.8%	Powell 2003	22 111	7 64		2.01	[0.81; 5.02	21 2.0%
Sun 2013	36 21		12 67	+	0.92	[0.45; 1.88]	2.5%	Guangda 1999	13 79	7 60			10.56; 4.00	
Hua 2006	4 7		7 82		0.63	[0.18; 2.25]	1.4%	Zhang 2003		23 157			[0.19, 1.46	
Guo 2003	4 2		5 44	-	1.36	(0.33; 5.57)	1.2%	Sun 2013	36 216	12 67	+		10.45, 1.88	
Liang 2017	3 3		57 324		0.45	[0.13; 1.53]	1.5%	Hua 2006	4 72	7 82			[0.18; 2.25	
Shen 2002	7 9		12 86	- <u>*</u> T	0.51	[0.19; 1.37]	1.9%	Guo 2003	4 27	5 44			[0.33; 5.57	
Zheng 1998	16 9		8 53			[0.44; 2.80]		Liang 2017	3 34	57 324			0.13; 1.53	
Hua 2004	7 3		4 49	-	3.28	[0.87; 12.34]		Shen 2002	7 91	12 86			10.19, 1.37	
Liu 2014 Xiang 1995	0 17		0 272 4 42	-	1.05	10.61; 6.23	0.0%	Zheng 1998	16 97	8 53			[0.44; 2.80	
Chen 2006	15 8		18 90	1-	0.86	10.40, 1.83	2.4%	Hua 2004	7 31	4 49			[0.87; 12.34	
Shen 2000	11 1		6 37	1		[3.37; 59.97]		Xiang 1995	16 94	4 42	-1		0.61; 6.23	
Xiong 2013	15 8		13 85	-		[0.51; 2.60]		Chen 2006	15 85	18 90	-	0.86	10.40; 1.83	
Zhou 2005	13 6		9 55	<u> </u>		[0.55; 3.63]		Xiang 1999	14 99	4 42		1.56	10.48; 5.07	
Long 1999	15 5		18 119	- m-		[1.07: 5.12]		Shen 2002	11 15	6 37			[3.37; 59.97	
Liang 2005	17 11		12 80			10.42, 2.10		Xiong 2013	15 87	13 85	2	1.15	0.51; 2.60	
Gu 2004	9 5		12 80		1.19	10.46; 3.05]		Zhou 2005	13 60 10 75	9 55 10 75	E.		0.55; 3.63	
Yang 1995	16 9		3 41		2.60	[0.71; 9.46]		Xiang 2005 Long 1999	15 51	18 119	Ter	1.00	[0.39; 2.56 [1.07; 5.12	
Rong 2013	4 2	2	8 37		0.81	0.21; 3.07]		Liang 2005	17 119	12 80	1.00	0.94	10.42, 2.10	
Liu 2016	0 24	3	0 274				0.0%	Gu 2004	9 52	12 80	2	1.19	10.46, 3.05	
Tang 2007	1 2	9	3 46		0.51	[0.05; 5.17]	0.6%	Rong 2013	4 22	8 37			10.21: 3.07	
Qiu 2008	14 10	9	18 94		0.62	0.29; 1.33]		Tang 2007	1 29	3 46			10.05: 5.17	
Ge 2013	35 12	1	40 143	*	1.05	[0.61; 1.79]	2.9%	Qiu 2008	14 109	18 94			10.29, 1.33	
Xiang 2010	5 3	3	13 83		0.96	[0.31; 2.95]	1.6%	Guo 2007	1 30	4 31			10.02 2.22	
Luo 2016	3 3	1	2 40		2.04	[0.32; 13.01]	0.8%	Xiong 2008	18 248	48 407	-00		10.33: 1.03	
Zhang 2007	2 3		1 40		2.44	[0.21; 28.12]	0.5%	Ge 2013	35 121	40 143	-		0.61; 1.79	
Wang 2014	4 3		7 35		0.48	[0.13; 1.83]	1.3%	Xiang 2010	5 33	13 83			10.31; 2.95	
Zhang 2002	3 4		7 62		0.59	[0.14; 2.42]	1.2%	Zhang 2002	3 43	7 62			10.14 2.42	
Xiong 2005	5 2		4 27		1.31	[0.31; 5.51]	1.2%	Xiong 2005	5 27	4 27			10.31; 5.51	
Dai 2000	5 2		14 78		0.99	[0.32; 3.07]		Dai 2000	5 28	14 78	-		0.32 3.07	
Random effects model Histerogeneity: 1 ² = 50%, 1			4061	Ŷ	1.11	[0.86; 1.41]	72.2%	Random effects mod	lel 4200	5433	ŀ		[0.93; 1.34	
					1.00	10.00: 1.200	100.01/	Heterogeneity: $r^2 = 40\%$						
Random effects model Heterogeneity: 1 ² = 55%, 1			6666		1.09	[0.90; 1.32]	100.0%	Random effects mod		6666		1.09	[0.90; 1.32] 100.0%
	- 0.2.000, p *	4.41		0.01 0.1 1 10 100				Heterogeneity: 7 ^e = 55%	$\tau^{-} = 0.2568, p < 0.01$					
				10 100							0.01 0.1 1 10 100			

В

А



С







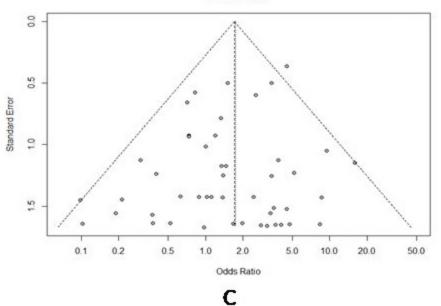


Figure legends:

Supplementary Figure S1 (A) Forest plot for associations between type 2 diabetes and *ApoE* ε 2 allele *vs.* ε 3 allele in the subgroup based on ethnicity. (B) Forest plot for associations between type 2 diabetes and *ApoE* ε 2 allele *vs.* ε 3 allele in the subgroup based on genotype.

Supplementary Figure S2 (A) Forest plot for associations between type 2 diabetes and *ApoE* ε 2 allele *vs.* ε 3 allele in the subgroup based on HWE. (B) Forest plot for associations between type 2 diabetes and *ApoE* ε 2/ ε 3 genotype *vs.* ε 3/ ε 3 genotype in the subgroup based on ethnicity.

Supplementary Figure S3 (A) Forest plot for associations between type 2 diabetes and *ApoE* $\varepsilon 2/\varepsilon 3$ genotype *vs.* $\varepsilon 3/\varepsilon 3$ genotype in the subgroup based on genotype. (B) Forest plot for associations between type 2 diabetes and *ApoE* $\varepsilon 2/\varepsilon 3$ genotype *vs.* $\varepsilon 3/\varepsilon 3$ genotype in the subgroup based on HWE.

Supplementary Figure S4 (A) Funnel plot of association between type 2 diabetes and *ApoE* ε 2 allele *vs.* ε 3 allele. (B) Funnel plot of association between type 2 diabetes and *ApoE* ε 4 allele *vs.* ε 3 allele. (C) Funnel plot of association between type 2 diabetes and *ApoE* ε 4 allele *vs.* ε 3 allele. (C) Funnel plot of association between type 2 diabetes and *ApoE* ε 2/ ε 2 genotype *vs.* and ε 3/ ε 3 genotype. (D) Funnel plot of association between type 2 diabetes and *ApoE* ε 2/ ε 2 genotype *vs.* and ε 3/ ε 3 genotype.

Supplementary Figure S5 (A) Funnel plot of association between type 2 diabetes and *ApoE* $\varepsilon 2/\varepsilon 4$ genotype *vs.* and $\varepsilon 3/\varepsilon 3$ genotype. (B) Funnel plot of association between type 2 diabetes and *ApoE* $\varepsilon 3/\varepsilon 4$ genotype *vs.* and $\varepsilon 3/\varepsilon 3$ genotype.(C) Funnel plot of association between type 2 diabetes and *ApoE* $\varepsilon 4/\varepsilon 4$ genotype *vs.* and $\varepsilon 3/\varepsilon 3$ genotype.

Figure legends:

- Figure 1 Flow chart of the process for literature identification and selection.
- Figure 2 Forest plot for the result of association between type 2 diabetes and *ApoE* ϵ 2 allele *vs*. ϵ 3 allele based on a random-effects model.
- Figure 3 Forest plot for the result of association between type 2 diabetes and *ApoE* ε 4 allele *vs.* ε 3 allele based on a fixed-effects model.
- Figure 4 Forest plot for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 2$ genotype *vs.* $\epsilon 3/\epsilon 3$ genotype based on a fixed-effects model.
- Figure 5 Forest plot for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 3$ genotype *vs.* $\epsilon 3/\epsilon 3$ genotype based on a random-effects model.
- Figure 6 Forest plot for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 4$ genotype *vs.* $\epsilon 3/\epsilon 3$ genotype based on a fixed-effects model.
- Figure 7 Forest plot for the result of association between type 2 diabetes and *ApoE* $\epsilon 3/\epsilon 4$ genotype vs. $\epsilon 3/\epsilon 3$ genotype based on a fixed-effects model.
- Figure 8 Forest plot for the result of association between type 2 diabetes and *ApoE* $\epsilon 4/\epsilon 4$ genotype *vs.* $\epsilon 3/\epsilon 3$ genotype based on a fixed-effects model.
- Figure 9 Sensitivity analysis for the result of association between type 2 diabetes and ApoE ε 2 allele vs. ε 3 allele.
- Figure 10 Sensitivity analysis for the result of association between type 2 diabetes and ApoE ε 4 allele vs. ε 3 allele.

- Figure 11 Sensitivity analysis for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 2$ genotype *vs*. $\epsilon 3/\epsilon 3$ genotype.
- Figure 12 Sensitivity analysis for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 3$ genotype *vs.* $\epsilon 3/\epsilon 3$ genotype.
- Figure 13 Sensitivity analysis for the result of association between type 2 diabetes and *ApoE* $\epsilon 2/\epsilon 4$ genotype *vs*. $\epsilon 3/\epsilon 3$ genotype.
- Figure 14 Sensitivity analysis for the result of association between type 2 diabetes and *ApoE* $\varepsilon 3/\varepsilon 4$ genotype *vs*. $\varepsilon 3/\varepsilon 3$ genotype.
- Figure 15 Sensitivity analysis for the result of association between type 2 diabetes and *ApoE* ε 4/ ε 4 genotype *vs*. ε 3/ ε 3 genotype.