PPARG (Pro12Ala) genetic variant and risk of T2DM: a systematic review and meta-analysis

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A

B

C

D

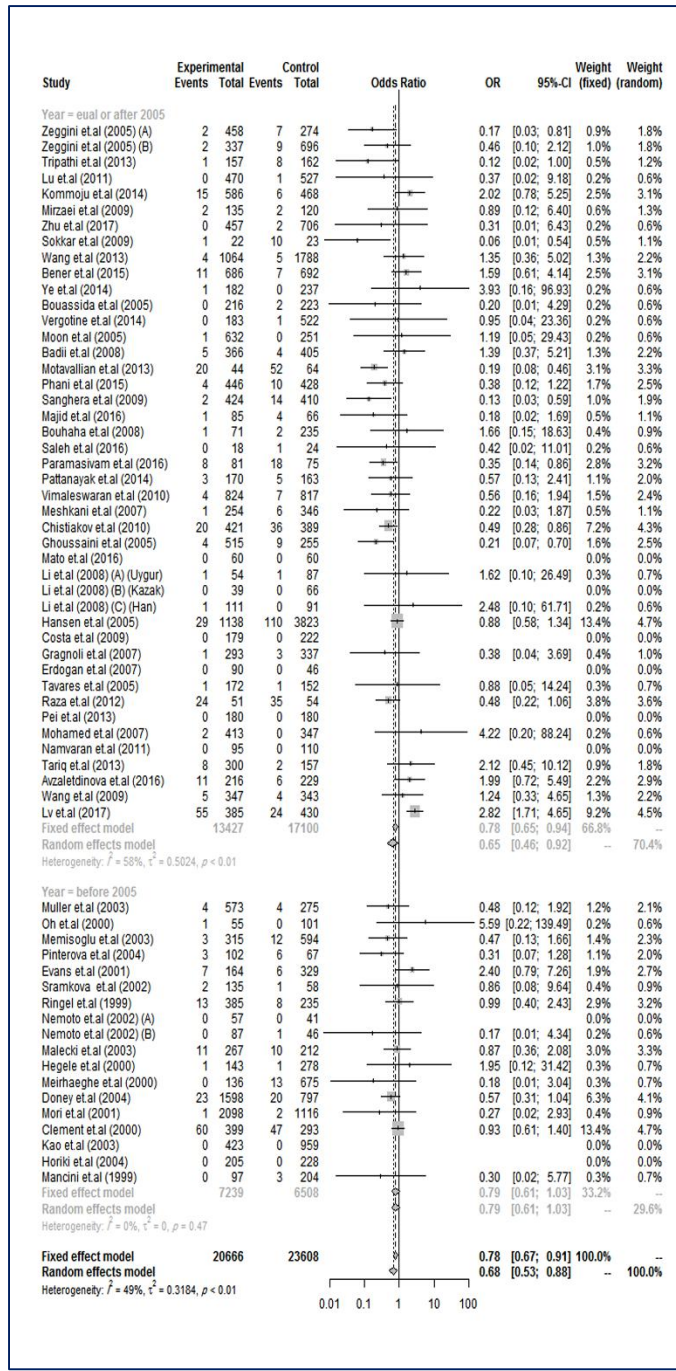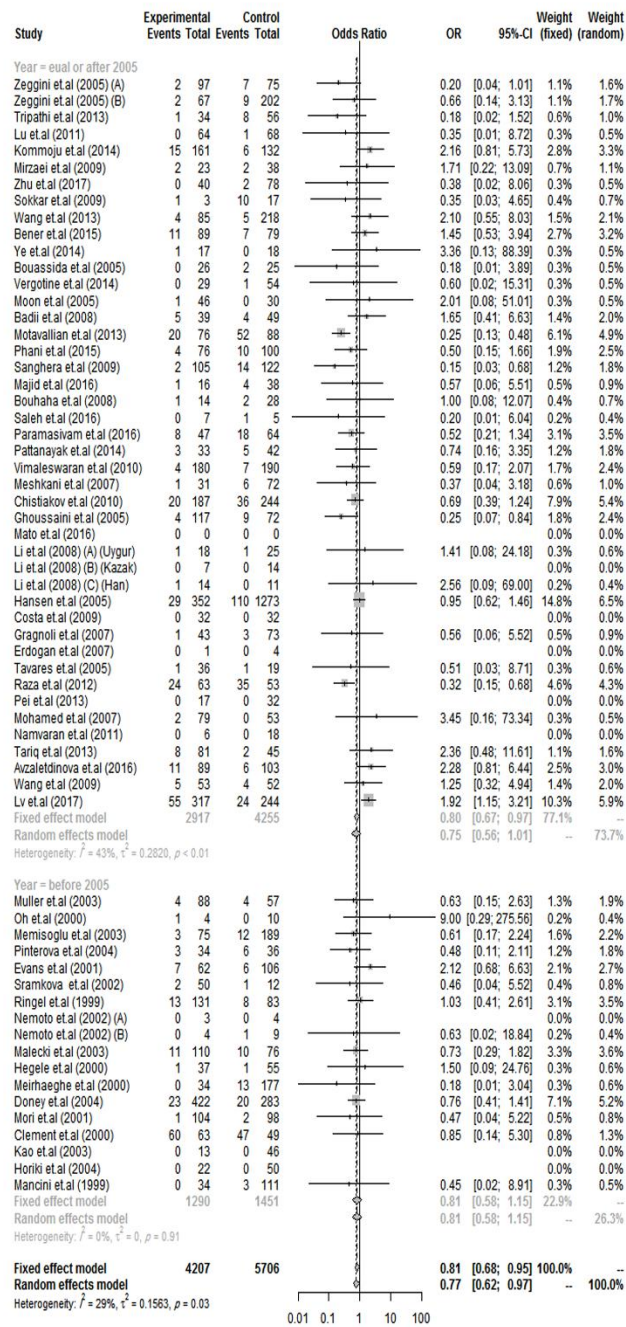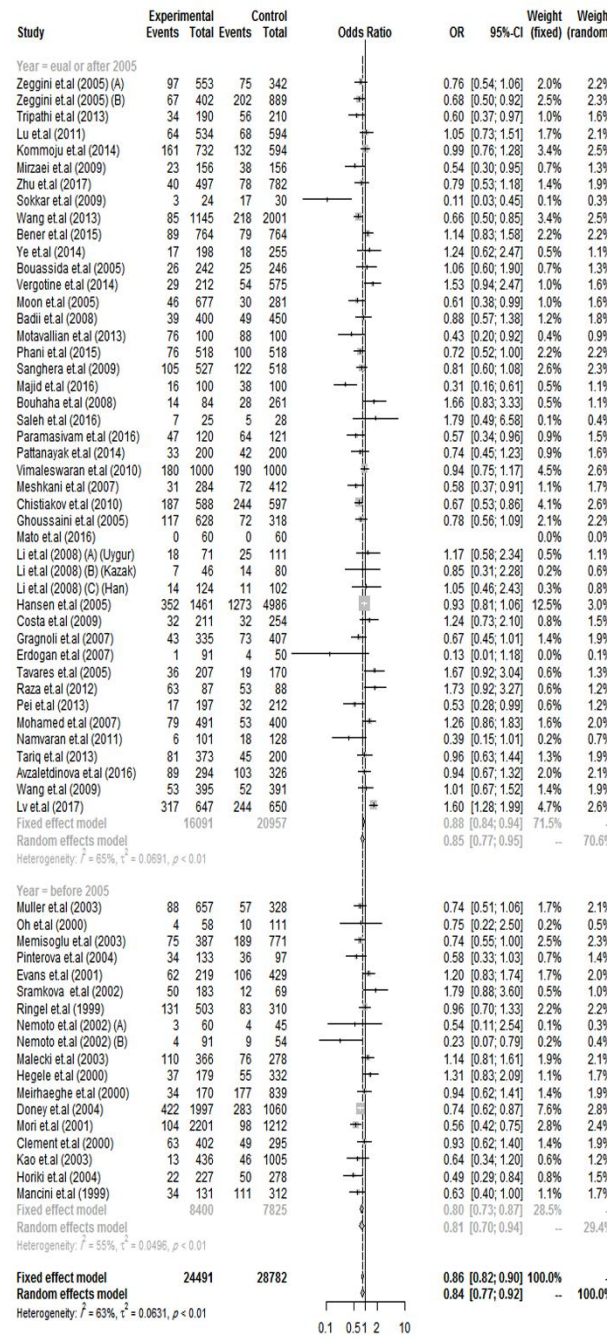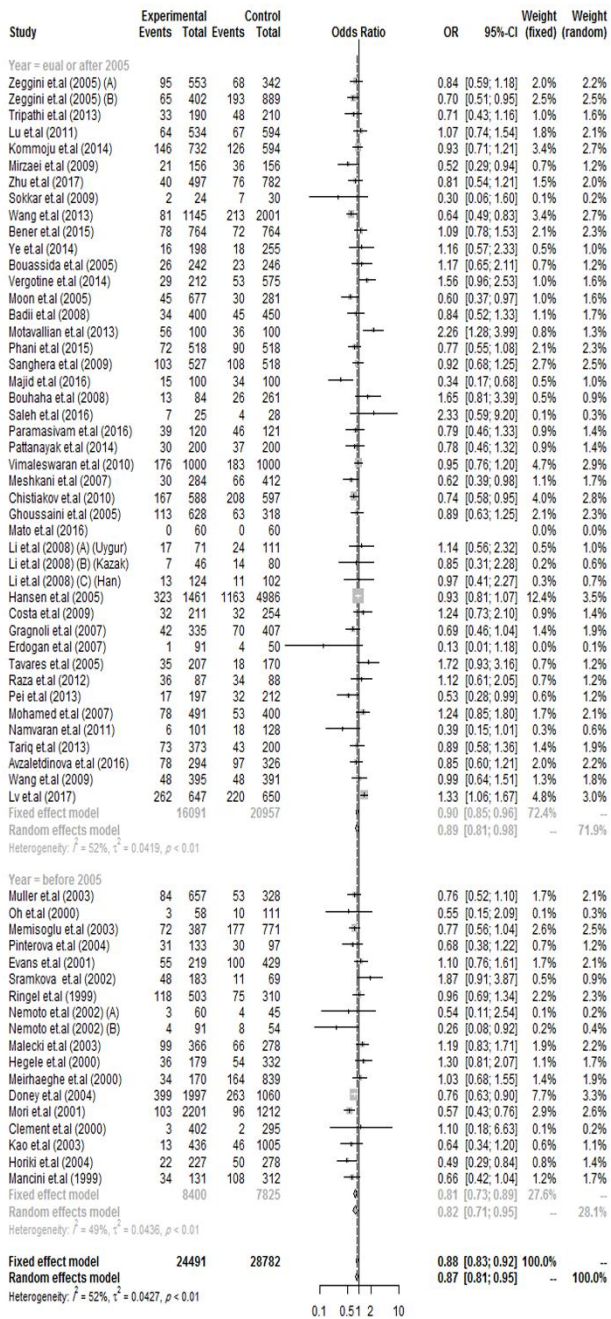| Study	Experimental Events	Total	Control Events	Total	OR	95%-CI	Weight (fixed)	Weight (random)
Year = eual or after 2005								
Zeggini et.al (2005) (A)	2	97	7	75	0.20	[0.04; 1.01]	1.1%	1.6%
Zeggini et.al (2005) (B)	2	67	9	202	0.66	[0.14; 3.13]	1.1%	1.7%
Tripathi et.al (2013)	1	34	8	56	0.18	[0.02; 1.52]	0.6%	1.0%
Lu et.al (2011)	0	64	1	68	0.35	[0.01; 8.72]	0.3%	0.5%
Kommoju et.al (2014)	15	161	6	132	2.16	[0.81; 5.73]	2.8%	3.3%
Mirzaei et.al (2009)	2	23	4	38	1.71	[0.22; 13.09]	0.7%	1.1%
Zhu et.al (2017)	0	40	2	78	0.38	[0.02; 8.06]	0.3%	0.5%
Sokkar et.al (2009)	1	3	10	17	0.35	[0.03; 4.65]	0.4%	0.7%
Wang et.al (2013)	4	85	5	218	2.10	[0.55; 8.03]	1.5%	2.1%
Bener et.al (2015)	11	89	7	79	1.45	[0.53; 3.94]	2.7%	3.2%
Ye et.al (2014)	1	17	0	18	3.36	[0.13; 88.39]	0.3%	0.5%
Bouassida et.al (2005)	0	26	2	25	0.18	[0.01; 3.89]	0.3%	0.5%
Vergotine et.al (2014)	0	29	1	54	0.60	[0.02; 15.31]	0.3%	0.5%
Moon et.al (2005)	1	46	0	30	2.01	[0.08; 51.01]	0.3%	0.5%
Badii et.al (2008)	5	39	4	49	1.65	[0.41; 6.63]	1.4%	2.1%
Motavallian et.al (2013)	20	76	52	88	0.25	[0.13; 0.48]	6.1%	4.9%
Phani et.al (2015)	4	76	10	100	0.50	[0.15; 1.66]	1.9%	2.5%
Sanghera et.al (2009)	2	105	14	122	0.15	[0.03; 0.68]	1.2%	1.8%
Majid et.al (2016)	1	16	4	38	0.57	[0.06; 5.51]	0.5%	0.9%
Bouhaha et.al (2008)	1	14	2	28	1.00	[0.08; 12.07]	0.4%	0.7%
Saleh et.al (2016)	0	7	1	5	0.20	[0.01; 6.04]	0.2%	0.4%
Paramasivam et.al (2016)	8	47	18	64	0.52	[0.21; 1.34]	3.1%	3.5%
Pattanayak et.al (2014)	3	33	5	42	0.74	[0.16; 3.35]	1.2%	1.8%
Vimaleswaran et.al (2010)	4	180	7	190	0.59	[0.17; 2.07]	1.7%	2.4%
Meshkani et.al (2007)	1	31	6	72	0.37	[0.04; 3.18]	0.6%	1.0%
Chistiakov et.al (2010)	20	187	36	244	0.69	[0.39; 1.24]	7.9%	5.4%
Ghoussaini et.al (2005)	4	117	9	72	0.25	[0.07; 0.84]	1.8%	2.4%
Mato et.al (2016)	0	0	0	0			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	1	18	1	25	1.41	[0.08; 24.18]	0.3%	0.6%
Li et.al (2008) (B) (Kazak)	0	7	0	14			0.0%	0.0%
Li et.al (2008) (C) (Han)	1	14	0	11	2.56	[0.09; 69.00]	0.2%	0.4%
Hansen et.al (2005)	29	352	110	1273	0.95	[0.62; 1.46]	14.8%	6.5%
Costa et.al (2009)	0	32	0	32			0.0%	0.0%
Gragnoli et.al (2007)	1	43	3	73	0.56	[0.06; 5.52]	0.5%	0.9%
Erdogan et.al (2007)	0	1	0	4			0.0%	0.0%
Tavares et.al (2005)	1	36	1	19	0.51	[0.03; 8.71]	0.3%	0.6%
Raza et.al (2012)	24	63	35	53	0.32	[0.15; 0.68]	4.6%	4.3%
Pei et.al (2013)	0	17	0	32			0.0%	0.0%
Mohamed et.al (2007)	2	79	0	53	3.45	[0.16; 73.34]	0.3%	0.5%
Namvaran et.al (2011)	0	6	0	18			0.0%	0.0%
Tariq et.al (2013)	8	81	2	45	2.36	[0.48; 11.61]	1.1%	1.6%
Avzaletdinova et.al (2016)	11	89	6	103	2.28	[0.81; 6.44]	2.5%	3.0%
Wang et.al (2009)	5	53	4	52	1.25	[0.32; 4.94]	1.4%	2.0%
Lv et.al (2017)	55	317	24	244	1.92	[1.15; 3.21]	10.3%	5.9%
Fixed effect model		2917		4255	0.80	[0.67; 0.97]	77.1%	--
Random effects model					0.75	[0.56; 1.01]	--	73.7%
Heterogeneity: $I^2 = 43\%$, $\tau^2 = 0.2820$, $p < 0.01$								
Year = before 2005								
Muller et.al (2003)	4	88	4	57	0.63	[0.15; 2.63]	1.3%	1.9%
Oh et.al (2000)	1	4	0	10	9.00	[0.29; 275.56]	0.2%	0.4%
Memisoglu et.al (2003)	3	75	12	189	0.61	[0.17; 2.24]	1.6%	2.2%
Pinterova et.al (2004)	3	34	6	36	0.48	[0.11; 2.11]	1.2%	1.8%
Evans et.al (2001)	7	62	6	106	2.12	[0.68; 6.63]	2.1%	2.7%
Sramkova et.al (2002)	2	50	1	12	0.46	[0.04; 5.52]	0.4%	0.8%
Ringel et.al (1999)	13	131	8	83	1.03	[0.41; 2.61]	3.1%	3.5%
Nemoto et.al (2002) (A)	0	3	0	4			0.0%	0.0%
Nemoto et.al (2002) (B)	0	4	1	9	0.63	[0.02; 18.84]	0.2%	0.4%
Malecki et.al (2003)	11	110	10	76	0.73	[0.29; 1.82]	3.3%	3.6%
Hegele et.al (2000)	1	37	1	55	1.50	[0.09; 24.76]	0.3%	0.6%
Meirhaeghe et.al (2000)	0	34	13	177	0.18	[0.01; 3.03]	0.3%	0.6%
Doney et.al (2004)	23	422	20	283	0.76	[0.41; 1.41]	7.1%	5.2%
Mori et.al (2001)	1	104	2	98	0.47	[0.04; 5.22]	0.5%	0.8%
Clement et.al (2000)	60	63	47	49	0.85	[0.14; 5.30]	0.8%	0.7%
Kao et.al (2003)	0	13	0	46			0.0%	0.0%
Horiki et.al (2004)	0	22	0	50			0.0%	0.0%
Mancini et.al (1999)	0	34	3	111	0.45	[0.02; 8.91]	0.3%	0.5%
Fixed effect model		1290		1451	0.81	[0.58; 1.15]	22.9%	--
Random effects model					0.81	[0.58; 1.15]	--	26.3%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.91$								
Fixed effect model		4207		5706	0.81	[0.68; 0.95]	100.0%	--
Random effects model					0.77	[0.62; 0.97]	--	100.0%
Heterogeneity: $I^2 = 29\%$, $\tau^2 = 0.1563$, $p = 0.03$								

Axis: 0.01 0.1 1 10 100

E

Study	Experimental Events	Total	Control Events	Total	OR	95%-CI	Weight (fixed)	Weight (random)
Year = eual or after 2005								
Zeggini et.al (2005) (A)	97	553	75	342	0.76	[0.54; 1.06]	2.0%	2.2%
Zeggini et.al (2005) (B)	67	402	202	889	0.68	[0.50; 0.92]	2.5%	2.3%
Tripathi et.al (2013)	34	190	56	210	0.60	[0.37; 0.97]	1.6%	1.6%
Lu et.al (2011)	64	534	68	594	1.05	[0.73; 1.51]	1.7%	2.1%
Kommoju et.al (2014)	161	732	132	594	0.99	[0.76; 1.28]	3.4%	2.5%
Mirzaei et.al (2009)	23	156	38	156	0.54	[0.30; 0.95]	0.7%	1.3%
Zhu et.al (2017)	40	497	78	782	0.79	[0.53; 1.18]	1.4%	1.9%
Sokkar et.al (2009)	3	24	17	30	0.11	[0.03; 0.45]	0.1%	0.7%
Wang et.al (2013)	85	1145	218	2001	0.66	[0.50; 0.85]	3.4%	2.5%
Bener et.al (2015)	89	764	79	764	1.14	[0.83; 1.58]	2.2%	2.2%
Ye et.al (2014)	17	198	18	255	1.24	[0.62; 2.47]	0.5%	1.1%
Bouassida et.al (2005)	26	242	25	246	1.06	[0.60; 1.90]	1.0%	1.3%
Vergotine et.al (2014)	29	212	54	575	1.53	[0.94; 2.47]	1.0%	1.6%
Moon et.al (2005)	46	677	30	281	0.61	[0.38; 0.99]	1.0%	1.6%
Badii et.al (2008)	39	400	49	450	0.88	[0.57; 1.38]	1.2%	1.8%
Motavallian et.al (2013)	76	100	88	100	0.43	[0.20; 0.92]	0.4%	0.9%
Phani et.al (2015)	76	518	100	518	0.72	[0.52; 1.00]	2.2%	2.2%
Sanghera et.al (2009)	105	527	122	518	0.81	[0.60; 1.08]	2.6%	2.3%
Majid et.al (2016)	16	100	38	100	0.31	[0.16; 0.61]	0.5%	1.1%
Bouhaha et.al (2008)	14	84	28	261	1.66	[0.83; 3.33]	0.5%	1.1%
Saleh et.al (2016)	7	25	5	28	1.79	[0.49; 6.58]	0.1%	0.4%
Paramasivam et.al (2016)	47	120	64	121	0.57	[0.34; 0.96]	0.9%	1.5%
Pattanayak et.al (2014)	33	200	42	200	0.74	[0.45; 1.23]	0.9%	1.5%
Vimaleswaran et.al (2010)	180	1000	191	1000	0.94	[0.75; 1.17]	4.5%	2.6%
Meshkani et.al (2007)	31	284	72	412	0.58	[0.37; 0.91]	1.1%	1.7%
Chistiakov et.al (2010)	187	588	244	597	0.67	[0.53; 0.86]	4.1%	2.6%
Ghoussaini et.al (2005)	117	628	72	318	0.78	[0.56; 1.09]	2.1%	2.2%
Mato et.al (2016)		60	0	60			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	18	71	25	111	1.17	[0.58; 2.34]	0.5%	1.1%
Li et.al (2008) (B) (Kazak)	7	46	14	80	0.85	[0.31; 2.28]	0.2%	0.6%
Li et.al (2008) (C) (Han)	11	102	11	102	1.05	[0.44; 2.43]	0.3%	0.8%
Hansen et.al (2005)	352	1461	1273	4986	0.93	[0.81; 1.06]	12.5%	3.0%
Costa et.al (2009)	32	211	32	254	1.24	[0.73; 2.10]	0.8%	1.5%
Gragnoli et.al (2007)	43	335	73	407	0.67	[0.45; 1.01]	1.4%	1.9%
Erdogan et.al (2007)	1	91	4	50	0.13	[0.01; 1.18]	0.1%	0.1%
Tavares et.al (2005)	36	207	19	170	1.67	[0.92; 3.04]	0.6%	1.3%
Raza et.al (2012)	63	87	53	88	1.73	[0.92; 3.27]	0.6%	1.2%
Pei et.al (2013)	17	197	32	212	0.53	[0.28; 0.99]	0.6%	1.2%
Mohamed et.al (2007)	79	491	53	400	1.26	[0.86; 1.83]	1.6%	2.0%
Namvaran et.al (2011)	6	101	18	128	0.39	[0.15; 1.01]	0.2%	0.7%
Tariq et.al (2013)	81	373	45	200	0.96	[0.63; 1.44]	1.3%	1.9%
Avzaletdinova et.al (2016)	89	294	103	326	0.94	[0.67; 1.32]	2.0%	2.1%
Wang et.al (2009)	53	395	52	391	1.01	[0.67; 1.52]	1.4%	1.9%
Lv et.al (2017)	317	647	244	650	1.60	[1.28; 1.99]	4.7%	2.6%
Fixed effect model		16091		20957	0.88	[0.84; 0.94]	71.5%	--
Random effects model					0.85	[0.77; 0.95]	--	70.6%
Heterogeneity: $I^2 = 65\%$, $\tau^2 = 0.0691$, $p < 0.01$								
Year = before 2005								
Muller et.al (2003)	88	657	57	328	0.74	[0.51; 1.06]	1.7%	2.1%
Oh et.al (2000)	4	58	10	111	0.75	[0.22; 2.50]	0.2%	0.5%
Memisoglu et.al (2003)	75	387	189	771	0.74	[0.55; 1.00]	2.5%	2.3%
Pinterova et.al (2004)	34	133	36	97	0.58	[0.33; 1.03]	0.7%	1.4%
Evans et.al (2001)	62	219	106	429	1.20	[0.83; 1.74]	1.7%	2.0%
Sramkova et.al (2002)	50	183	12	69	1.79	[0.88; 3.60]	0.5%	1.0%
Ringel et.al (1999)	131	503	83	310	0.96	[0.70; 1.33]	2.2%	2.2%
Nemoto et.al (2002) (A)	3	60	4	45	0.54	[0.11; 2.54]	0.1%	0.3%
Nemoto et.al (2002) (B)	4	91	9	54	0.23	[0.07; 0.79]	0.2%	0.4%
Malecki et.al (2003)	110	366	76	278	1.14	[0.81; 1.61]	1.9%	2.1%
Hegele et.al (2000)	37	179	55	332	1.31	[0.83; 2.09]	1.1%	1.7%
Meirhaeghe et.al (2000)	34	170	177	839	0.94	[0.62; 1.41]	1.4%	1.9%
Doney et.al (2004)	422	1997	283	1060	0.74	[0.62; 0.87]	7.6%	2.8%
Mori et.al (2001)	104	2201	98	1212	0.56	[0.42; 0.75]	2.8%	2.4%
Clement et.al (2000)	63	402	49	295	0.93	[0.62; 1.40]	1.4%	1.9%
Kao et.al (2003)	13	436	46	1005	0.64	[0.34; 1.20]	0.6%	1.2%
Horiki et.al (2004)	22	207	50	278	0.49	[0.29; 0.84]	0.8%	1.5%
Mancini et.al (1999)	34	131	111	312	0.63	[0.40; 1.00]	1.1%	1.7%
Fixed effect model		8400		7825	0.80	[0.73; 0.87]	28.5%	--
Random effects model					0.81	[0.70; 0.94]	--	29.4%
Heterogeneity: $I^2 = 55\%$, $\tau^2 = 0.0496$, $p < 0.01$								
Fixed effect model		24491		28782	0.86	[0.82; 0.90]	100.0%	--
Random effects model					0.84	[0.77; 0.92]	--	100.0%
Heterogeneity: $I^2 = 63\%$, $\tau^2 = 0.0631$, $p < 0.01$								

Axis: 0.1 0.5 1 2 10

F

Study	Experimental Events	Total	Control Events	Total	OR	95%-CI	Weight (fixed)	Weight (random)
Year = eual or after 2005								
Zeggini et.al (2005) (A)	2	553	7	342	0.17	[0.04; 0.84]	0.9%	1.7%
Zeggini et.al (2005) (B)	2	402	9	889	0.49	[0.11; 2.27]	0.9%	1.7%
Tripathi et.al (2013)	1	190	8	210	0.13	[0.02; 1.08]	0.5%	1.1%
Lu et.al (2011)	0	534	1	594	0.37	[0.02; 9.11]	0.2%	0.5%
Kommoju et.al (2014)	15	732	6	594	2.05	[0.79; 5.32]	2.4%	3.1%
Mirzaei et.al (2009)	2	156	2	156	1.00	[0.14; 7.19]	0.6%	1.2%
Zhu et.al (2017)	0	497	2	782	0.31	[0.02; 6.55]	0.2%	0.5%
Sokkar et.al (2009)	1	24	10	30	0.09	[0.01; 0.74]	0.5%	1.0%
Wang et.al (2013)	4	1145	5	2001	1.40	[0.38; 5.22]	1.3%	2.1%
Bener et.al (2015)	11	764	7	764	1.58	[0.61; 4.10]	2.4%	3.1%
Ye et.al (2014)	1	198	0	255	3.88	[0.16; 95.78]	0.2%	0.5%
Bouassida et.al (2005)	0	242	2	246	0.20	[0.01; 4.22]	0.2%	0.5%
Vergotine et.al (2014)	0	212	1	575	0.90	[0.04; 22.21]	0.2%	0.5%
Moon et.al (2005)	1	677	0	281	1.25	[0.05; 30.74]	0.2%	0.5%
Badii et.al (2008)	5	400	4	450	1.41	[0.38; 5.29]	1.2%	2.1%
Motavallian et.al (2013)	20	100	52	100	0.23	[0.12; 0.43]	5.5%	4.2%
Phani et.al (2015)	4	518	10	518	0.40	[0.12; 1.27]	1.6%	2.5%
Sanghera et.al (2009)	2	527	14	518	0.14	[0.03; 0.61]	1.1%	1.8%
Majid et.al (2016)	1	100	4	100	0.24	[0.03; 2.21]	0.4%	1.0%
Bouhaha et.al (2008)	1	84	2	261	1.56	[0.14; 17.43]	0.4%	0.7%
Saleh et.al (2016)	0	25	1	28	0.36	[0.01; 9.23]	0.2%	0.5%
Paramasivam et.al (2016)	8	120	18	121	0.41	[0.17; 0.98]	2.9%	3.3%
Pattanayak et.al (2014)	3	200	5	200	0.59	[0.14; 2.52]	1.0%	1.9%
Vimaleswaran et.al (2010)	4	1000	7	1000	0.57	[0.17; 1.95]	1.4%	2.3%
Meshkani et.al (2007)	1	284	6	412	0.24	[0.03; 2.00]	0.5%	1.1%
Chistiakov et.al (2010)	20	588	36	597	0.55	[0.31; 0.96]	7.0%	4.5%
Ghoussaini et.al (2005)	4	628	9	318	0.22	[0.07; 0.72]	1.6%	2.4%
Mato et.al (2016)	0	60	0	60			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	1	71	0	111	1.57	[0.10; 25.53]	0.3%	0.7%
Li et.al (2008) (B) (Kazak)	0	46	0	80			0.0%	0.0%
Li et.al (2008) (C) (Han)	1	124	0	102	2.49	[0.10; 61.78]	0.2%	0.5%
Hansen et.al (2005)	29	1461	110	4986	0.90	[0.59; 1.36]	12.8%	5.0%
Costa et.al (2009)	0	211	0	254			0.0%	0.0%
Gragnoli et.al (2007)	1	335	3	407	0.40	[0.04; 3.89]	0.4%	0.9%
Erdogan et.al (2007)	0	91	0	50			0.0%	0.0%
Tavares et.al (2005)	1	207	1	170	0.82	[0.05; 13.21]	0.3%	0.7%
Raza et.al (2012)	24	87	35	88	0.58	[0.31; 1.09]	5.4%	4.2%
Pei et.al (2013)	0	197	0	212			0.0%	0.0%
Mohamed et.al (2007)	2	491	0	400	4.09	[0.20; 85.46]	0.2%	0.6%
Namvaran et.al (2011)	0	101	0	128			0.0%	0.0%
Tariq et.al (2013)	8	373	2	200	2.17	[0.46; 10.32]	0.9%	1.9%
Avzaletdinova et.al (2016)	11	294	6	326	2.07	[0.76; 5.68]	2.1%	2.9%
Wang et.al (2009)	5	395	4	391	1.24	[0.33; 4.65]	1.2%	2.1%
Lv et.al (2017)	55	647	24	650	2.42	[1.48; 3.97]	9.0%	4.7%
Fixed effect model		16091		20957	0.77	[0.64; 0.92]	68.4%	--
Random effects model					0.68	[0.49; 0.94]	--	70.7%
Heterogeneity: $I^2 = 55\%$, $\tau^2 = 0.4119$, $p < 0.01$								
Year = before 2005								
Muller et.al (2003)	4	657	4	328	0.50	[0.12; 2.00]	1.1%	2.0%
Oh et.al (2000)	1	58	0	111	5.82	[0.23; 145.07]	0.2%	0.5%
Memisoglu et.al (2003)	3	387	12	771	0.49	[0.14; 1.76]	1.4%	2.2%
Pinterova et.al (2004)	3	133	6	97	0.35	[0.09; 1.44]	1.1%	2.0%
Evans et.al (2001)	7	219	6	429	2.33	[0.77; 7.01]	1.8%	2.6%
Sramkova et.al (2002)	2	183	1	69	0.75	[0.07; 8.42]	0.4%	0.9%
Ringel et.al (1999)	13	503	8	310	1.00	[0.41; 2.44]	2.7%	3.3%
Nemoto et.al (2002) (A)	0	60	0	45			0.0%	0.0%
Nemoto et.al (2002) (B)	0	91	1	54	0.19	[0.01; 4.87]	0.2%	0.5%
Malecki et.al (2003)	11	366	10	278	0.83	[0.35; 1.98]	2.9%	3.3%
Hegele et.al (2000)	1	179	1	332	1.86	[0.12; 29.91]	0.3%	0.7%
Meirhaeghe et.al (2000)	0	170	13	839	0.18	[0.01; 3.03]	0.3%	0.6%
Doney et.al (2004)	23	1997	20	1060	0.61	[0.33; 1.11]	6.0%	4.3%
Mori et.al (2001)	1	2201	2	1212	0.28	[0.02; 3.04]	0.4%	0.9%
Clement et.al (2000)	60	402	47	295	0.93	[0.61; 1.40]	12.7%	5.0%
Kao et.al (2003)	0	436	0	1005			0.0%	0.0%
Horiki et.al (2004)	0	227	0	278			0.0%	0.0%
Mancini et.al (1999)	0	131	3	312	0.34	[0.02; 6.56]	0.2%	0.6%
Fixed effect model		8400		7825	0.80	[0.62; 1.04]	31.6%	--
Random effects model					0.80	[0.62; 1.04]	--	29.3%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.59$								
Fixed effect model		24491		28782	0.78	[0.67; 0.90]	100.0%	--
Random effects model					0.71	[0.56; 0.90]	--	100.0%
Heterogeneity: $I^2 = 45\%$, $\tau^2 = 0.2583$, $p < 0.01$								

Axis: 0.01 0.1 1 10 100

Figure S4. Subgroup analysis according to publication year. "A" represents allele (G vs. C); "B" represents homozygote (GG vs. CC); "C" represents heterozygote (CG vs. CC); "D" represents additive (GG vs. CG); "E" represents dominant (CG/GG vs. CC); "F" represents recessive (GG vs. CC/CG); "G" co-dominant model (CG vs. CC+GG). Vertical and horizontal lines represent ORs and the corresponding 95% CIs of each study. 95% CI = 95% confidence interval, OR = odds ratio.

Study	Experimental Events	Experimental Total	Control Events	Control Total	OR	95%-CI	Weight (fixed)	Weight (random)
Year = eual or after 2005								
Zeggini et.al (2005) (A)	95	553	68	342	0.84	[0.59; 1.18]	2.0%	2.2%
Zeggini et.al (2005) (B)	65	402	193	889	0.70	[0.51; 0.95]	2.5%	2.5%
Tripathi et.al (2013)	33	190	48	210	0.71	[0.43; 1.16]	1.0%	1.6%
Lu et.al (2011)	64	534	67	594	1.07	[0.74; 1.54]	1.8%	2.1%
Kommoju et.al (2014)	146	732	126	594	0.93	[0.71; 1.21]	3.4%	2.7%
Mirzaei et.al (2009)	21	156	36	156	0.52	[0.29; 0.94]	0.7%	1.2%
Zhu et.al (2017)	40	497	76	782	0.81	[0.54; 1.21]	1.5%	2.0%
Sokkar et.al (2009)	2	24	7	30	0.30	[0.06; 1.60]	0.1%	0.2%
Wang et.al (2013)	81	1145	213	2001	0.64	[0.49; 0.83]	3.4%	2.7%
Bener et.al (2015)	78	764	72	764	1.09	[0.78; 1.53]	2.1%	2.3%
Ye et.al (2014)	16	198	18	255	1.16	[0.57; 2.33]	0.5%	1.0%
Bouassida et.al (2005)	26	242	23	246	1.17	[0.65; 2.11]	0.7%	1.2%
Vergotine et.al (2014)	29	212	53	575	1.56	[0.96; 2.53]	1.0%	1.6%
Moon et.al (2005)	45	677	30	281	0.60	[0.37; 0.97]	1.0%	1.6%
Badii et.al (2008)	34	400	45	450	0.84	[0.52; 1.33]	1.1%	1.7%
Motavallian et.al (2013)	56	100	36	100	2.26	[1.28; 3.99]	0.8%	1.3%
Phani et.al (2015)	72	518	90	518	0.77	[0.55; 1.08]	2.1%	2.3%
Sanghera et.al (2009)	103	527	108	518	0.92	[0.68; 1.25]	2.7%	2.5%
Majid et.al (2016)	15	100	34	100	0.34	[0.17; 0.68]	0.5%	1.0%
Bouhaha et.al (2008)	13	84	26	261	1.65	[0.81; 3.39]	0.5%	0.9%
Saleh et.al (2016)	7	25	4	28	2.33	[0.59; 9.20]	0.1%	0.3%
Paramasivam et.al (2016)	39	120	46	121	0.79	[0.46; 1.33]	0.9%	1.4%
Pattanayak et.al (2014)	30	200	37	200	0.78	[0.46; 1.32]	0.9%	1.4%
Vimaleswaran et.al (2010)	176	1000	183	1000	0.95	[0.76; 1.20]	4.7%	2.9%
Meshkani et.al (2007)	30	284	66	412	0.62	[0.39; 0.98]	1.1%	1.7%
Chistiakov et.al (2010)	167	588	208	597	0.74	[0.58; 0.95]	4.0%	2.8%
Ghoussaini et.al (2005)	113	628	63	318	0.89	[0.63; 1.25]	2.1%	2.3%
Mato et.al (2016)	0	60	0	60			0.0%	0.0%
Li et.al (2008) (A) (Uygur)	17	71	24	111	1.14	[0.56; 2.32]	0.5%	1.0%
Li et.al (2008) (B) (Kazak)	7	46	14	80	0.85	[0.31; 2.28]	0.2%	0.6%
Li et.al (2008) (C) (Han)	13	124	11	102	0.97	[0.41; 2.27]	0.3%	0.7%
Hansen et.al (2005)	323	1461	1163	4986	0.93	[0.81; 1.07]	12.4%	3.5%
Costa et.al (2009)	32	211	32	254	1.24	[0.73; 2.10]	0.9%	1.4%
Gragnoli et.al (2007)	42	335	70	407	0.69	[0.46; 1.04]	1.4%	1.9%
Erdogan et.al (2007)	1	91	4	50	0.13	[0.01; 1.18]	0.0%	0.1%
Tavares et.al (2005)	35	207	18	170	1.72	[0.93; 3.16]	0.7%	1.2%
Raza et.al (2012)	36	87	34	88	1.12	[0.61; 2.05]	0.7%	1.2%
Pei et.al (2013)	17	197	32	212	0.53	[0.28; 0.99]	0.6%	1.2%
Mohamed et.al (2007)	78	491	53	400	1.24	[0.85; 1.80]	1.7%	2.1%
Namvaran et.al (2011)	6	101	18	128	0.39	[0.15; 1.01]	0.3%	0.6%
Tariq et.al (2013)	73	373	43	200	0.89	[0.58; 1.36]	1.4%	1.9%
Avzaletdinova et.al (2016)	78	294	97	326	0.85	[0.60; 1.21]	2.0%	2.2%
Wang et.al (2009)	48	395	48	391	0.99	[0.64; 1.51]	1.3%	1.8%
Lv et.al (2017)	262	647	220	650	1.33	[1.06; 1.67]	4.8%	3.0%
Fixed effect model		16091		20957	0.90	[0.85; 0.96]	72.4%	--
Random effects model					0.89	[0.81; 0.98]	--	71.9%
Heterogeneity: I^2 = 52%, τ^2 = 0.0419, p < 0.01								
Year = before 2005								
Muller et.al (2003)	84	657	53	328	0.76	[0.52; 1.10]	1.7%	2.1%
Oh et.al (2000)	3	58	10	111	0.55	[0.15; 2.09]	0.1%	0.3%
Memisoglu et.al (2003)	72	387	177	771	0.77	[0.56; 1.04]	2.6%	2.5%
Pinterova et.al (2004)	31	133	30	97	0.68	[0.38; 1.22]	0.7%	1.2%
Evans et.al (2001)	55	219	100	429	1.10	[0.76; 1.61]	1.7%	2.1%
Sramkova et.al (2002)	48	183	11	69	1.87	[0.91; 3.87]	0.5%	0.9%
Ringel et.al (1999)	118	503	75	310	0.96	[0.69; 1.34]	2.2%	2.3%
Nemoto et.al (2002) (A)	3	60	4	45	0.54	[0.11; 2.54]	0.1%	0.2%
Nemoto et.al (2002) (B)	4	91	8	54	0.26	[0.08; 0.92]	0.2%	0.4%
Malecki et.al (2003)	99	366	66	278	1.19	[0.83; 1.71]	1.9%	2.2%
Hegele et.al (2000)	36	179	54	332	1.30	[0.81; 2.07]	1.1%	1.7%
Meirhaeghe et.al (2000)	34	170	164	839	1.03	[0.68; 1.55]	1.4%	1.9%
Doney et.al (2004)	399	1997	263	1060	0.76	[0.63; 0.90]	7.7%	3.3%
Mori et.al (2001)	103	2201	96	1212	0.57	[0.43; 0.76]	2.9%	2.6%
Clement et.al (2000)	3	402	2	295	1.10	[0.18; 6.63]	0.1%	0.2%
Kao et.al (2003)	13	436	46	1005	0.64	[0.34; 1.20]	0.6%	1.1%
Horiki et.al (2004)	22	227	50	278	0.49	[0.29; 0.84]	0.8%	1.4%
Mancini et.al (1999)	34	131	108	312	0.66	[0.42; 1.04]	1.2%	1.7%
Fixed effect model		8400		7825	0.81	[0.73; 0.89]	27.6%	--
Random effects model					0.82	[0.71; 0.95]	--	28.1%
Heterogeneity: I^2 = 49%, τ^2 = 0.0436, p < 0.01								
Fixed effect model		24491		28782	0.88	[0.83; 0.92]	100.0%	--
Random effects model					0.87	[0.81; 0.95]	--	100.0%
Heterogeneity: I^2 = 52%, τ^2 = 0.0427, p < 0.01								

Odds Ratio scale: 0.1 0.5 1 2 10

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