Study or Subgroup	CC+CT Events	Total	TT Events	Total	Weight	Odds Ratio M-H, Random, 95% CI	Year	Odds Ratio M-H, Random, 95% CI
Xie 2013	1179	1721	796	1249	40.1%	1.24 [1.06, 1.44]	2013	
Chanthra 2015	316	445	128	205	24.0%	1.47 [1.04, 2.09]	2015	
Fatemipour 2016	53	71	30	62	8.9%	3.14 [1.51, 6.52]	2016	
Li 2018	236	373	190	320	27.0%	1.18 [0.87, 1.60]	2018	
Total (95% CI)		2610		1836	100.0%	1.38 [1.09, 1.76]		
Total events	1784		1144					

Heterogeneity: Tau² = 0.03; Chi² = 6.86, df = 3 (P = 0.08); I² = 56%

Test for overall effect: Z = 2.63 (P = 0.008)

Study or Subgroup	CC Events	CC Total	CT+TT Events	CT+TT Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year
1.1.1 CHB vs.HC+NC							
Xie 2013	270	412	1705	2558	41.9%	0.95 [0.76, 1.18]	2013
Chanthra2015	82	112	362	538	8.6%	1.33 [0.84, 2.10]	2015
Fatemipour 2016	27	41	56	92	3.0%	1.24 [0.57, 2.68]	2016
Li 2018	51	70	375	623	5.3%	1.78 [1.02, 3.08]	2018
Subtotal (95% CI)		635		3811	58.8%	1.10 [0.91, 1.31]	
Total events	430		2498				

Heterogeneity: Chi² = 5.34, df = 3 (P = 0.15); I² = 44%

Test for overall effect: Z = 0.99 (P = 0.32)

Study or Subgroup	CC Events	CC Total	CT+TT Events	CT+TT Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year
1.1.2 CHB with HCC vs.CHB without HCC（Southeast Asian）							
Xie 2013	140	270	869	1705	29.4%	1.04 [0.80, 1.34]	2013
Chanthra2015	49	82	162	362	6.2%	1.83 [1.13, 2.99]	2015
Li 2018	23	51	164	375	5.5%	1.06 [0.59, 1.90]	2018
Subtotal (95% CI)		403		2442	41.2%	1.16 [0.94, 1.43]	
Total events	212		1195				

Heterogeneity: Chi² = 4.22, df = 2 (P = 0.12); I² = 53%

Test for overall effect: Z = 1.37 (P = 0.17)

Study or Subgroup	CC Events	CC Total	CT+TT Events	CT+TT Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year
Total (95% CI)		1038		6253	100.0%	1.12 [0.98, 1.29]	
Total events	642		3693				

Heterogeneity: Chi² = 9.74, df = 6 (P = 0.14); I² = 38%

Test for overall effect: Z = 1.64 (P = 0.10)

Study or Subgroup	CC+CT Events	CC+CT Total	TT Events	TT Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB vs.HC+NC (Southeast Asian)								
Xie 2013	1179	1721	796	1249	26.7%	1.24 [1.06, 1.44]	2013	
Chanthra2015	316	445	128	205	4.7%	1.47 [1.04, 2.09]	2015	
Li 2018	236	373	190	320	6.9%	1.18 [0.87, 1.60]	2018	
Subtotal (95% CI)		2539		1774	38.3%	1.26 [1.11, 1.43]		
Total events	1731		1114					
Heterogeneity: Chi² = 1.00, df = 2 (P = 0.61); I² = 0%								
Test for overall effect: Z = 3.49 (P = 0.0005)								
1.1.2 CHB with HCC vs.CHB without HCC								
Xie 2013	598	1179	411	796	22.2%	0.96 [0.81, 1.15]	2013	
Liao 2014	156	316	55	128	3.6%	1.29 [0.86, 1.96]	2014	
Chanthra2015	23	53	10	30	0.7%	1.53 [0.60, 3.90]	2015	
Fatemipour 2016	105	236	82	190	4.6%	1.06 [0.72, 1.55]	2016	
Subtotal (95% CI)		1784		1144	31.2%	1.03 [0.89, 1.19]		
Total events	882		558					
Heterogeneity: Chi² = 2.40, df = 3 (P = 0.49); I² = 0%								
Test for overall effect: Z = 0.37 (P = 0.71)								
1.1.3 CHB with HCC vs.CHB without HCC(Southeast Asian)								
Xie 2013	598	1179	411	796	22.2%	0.96 [0.81, 1.15]	2013	
Chanthra2015	156	316	55	128	3.6%	1.29 [0.86, 1.96]	2015	
Li 2018	105	236	82	190	4.6%	1.06 [0.72, 1.55]	2018	
Subtotal (95% CI)		1731		1114	30.5%	1.02 [0.87, 1.18]		
Total events	859		548					
Heterogeneity: Chi² = 1.68, df = 2 (P = 0.43); I² = 0%								
Test for overall effect: Z = 0.22 (P = 0.82)								
Total (95% CI)		6054		4032	100.0%	1.11 [1.02, 1.21]		
Total events	3472		2220					
Heterogeneity: Chi² = 10.97, df = 9 (P = 0.28); I² = 18%								
Test for overall effect: Z = 2.55 (P = 0.01)								

0.01 0.1 1 10 100

Study or Subgroup	CC Events	Total	CT+CC Events	Total	Weight	Odds Ratio M-H, Random, 95% CI	Year	Odds Ratio M-H, Random, 95% CI
1.1.1 CHB vs.HC+NC (Southeast Asian)								
Xie 2013	270	412	1705	2558	21.6%	0.95 [0.76, 1.18]	2013	
Chanthra2015	82	112	362	538	14.8%	1.33 [0.84, 2.10]	2015	
Li 2018	51	70	375	623	12.5%	1.78 [1.02, 3.08]	2018	
Subtotal (95% CI)		594		3719	48.9%	1.23 [0.85, 1.77]		
Total events	403		2442					

Heterogeneity: Tau² = 0.07; Chi² = 5.22, df = 2 (P = 0.07); I² = 62%

Test for overall effect: Z = 1.08 (P = 0.28)

Study or Subgroup	CC Events	Total	CT+CC Events	Total	Weight	Odds Ratio M-H, Random, 95% CI	Year	Odds Ratio M-H, Random, 95% CI
1.1.2 CHB with HCC vs.CHB without HCC								
Xie 2013	140	270	869	1705	20.5%	1.04 [0.80, 1.34]	2013	
Chanthra2015	49	82	162	362	14.0%	1.83 [1.13, 2.99]	2015	
Fatemipour 2016	5	27	28	56	5.0%	0.23 [0.08, 0.69]	2016	
Li 2018	23	51	164	375	11.7%	1.06 [0.59, 1.90]	2018	
Subtotal (95% CI)		430		2498	51.1%	0.98 [0.58, 1.67]		
Total events	217		1223					

Heterogeneity: Tau² = 0.20; Chi² = 12.30, df = 3 (P = 0.006); I² = 76%

Test for overall effect: Z = 0.06 (P = 0.95)

| **Total (95% CI)** | | 1024 | | 6217 | 100.0% | 1.14 [0.86, 1.50] | | |
| Total events | 620 | | 3665 | | | | | |

Heterogeneity: Tau² = 0.08; Chi² = 17.50, df = 6 (P = 0.008); I² = 66%

Test for overall effect: Z = 0.91 (P = 0.36)

Study or Subgroup	G Events	Total	C Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB VS.HC								
Xie 2013	1862	2792	1982	3070	83.5%	1.10 [0.99, 1.22]	2013	
Chanthra 2015	424	625	360	539	16.5%	1.05 [0.82, 1.34]	2015	
Subtotal (95% CI)		3417		3609	100.0%	1.09 [0.99, 1.20]		
Total events	2286		2342					

Heterogeneity: Chi² = 0.12, df = 1 (P = 0.73); I² = 0%
Test for overall effect: Z = 1.72 (P = 0.08)

1.1.2 CHB with HCC vs.CHB without HCC								
Xie 2013	1000	1862	1026	1982	82.7%	1.08 [0.95, 1.23]	2013	
Chanthra2015	209	424	175	360	17.3%	1.03 [0.78, 1.36]	2015	
Subtotal (95% CI)		2286		2342	100.0%	1.07 [0.95, 1.20]		
Total events	1209		1201					

Heterogeneity: Chi² = 0.10, df = 1 (P = 0.75); I² = 0%
Test for overall effect: Z = 1.18 (P = 0.24)

0.01 0.1 1 10 100

Study or Subgroup	GG+GC Events	Total	CC Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB VS.HC								
Xie 2013	1412	2127	510	804	85.3%	1.14 [0.96, 1.35]	2013	
Chanthra2015	308	456	84	126	14.7%	1.04 [0.68, 1.58]	2015	
Subtotal (95% CI)		2583		930	100.0%	1.12 [0.96, 1.32]		
Total events	1720		594					
Heterogeneity: Chi² = 0.15, df = 1 (P = 0.70); I² = 0%								
Test for overall effect: Z = 1.46 (P = 0.14)								
1.1.2 CHB with HCC vs.CHB without HCC								
Xie 2013	748	1412	265	510	85.6%	1.04 [0.85, 1.28]	2013	
Chanthra2015	153	308	39	84	14.4%	1.14 [0.70, 1.85]	2015	
Subtotal (95% CI)		1720		594	100.0%	1.06 [0.88, 1.27]		
Total events	901		304					
Heterogeneity: Chi² = 0.11, df = 1 (P = 0.74); I² = 0%								
Test for overall effect: Z = 0.57 (P = 0.57)								

Study or Subgroup	GG Events	Total	GC+CC Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB VS.HC								
Xie 2013	450	665	1472	2266	81.1%	1.13 [0.94, 1.36]	2013	
Chanthra2015	116	169	276	413	18.9%	1.09 [0.74, 1.60]	2015	
Subtotal (95% CI)		834		2679	100.0%	**1.12 [0.95, 1.32]**		
Total events	566		1748					
Heterogeneity: Chi² = 0.03, df = 1 (P = 0.86); I² = 0%								
Test for overall effect: Z = 1.35 (P = 0.18)								
1.1.2 CHB with HCC vs.CHB without HCC								
Xie 2013	252	450	761	1472	79.0%	1.19 [0.96, 1.47]	2013	
Chanthra2015	56	116	136	276	21.0%	0.96 [0.62, 1.48]	2015	
Subtotal (95% CI)		566		1748	100.0%	**1.14 [0.94, 1.38]**		
Total events	308		897					
Heterogeneity: Chi² = 0.75, df = 1 (P = 0.39); I² = 0%								
Test for overall effect: Z = 1.36 (P = 0.17)								

Study or Subgroup	GG+GT Events	GG+GT Total	TT Events	TT Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB.vs.HC								
+NC Liao 2014	591	1139	71	151	8.1%	1.22 [0.86, 1.71]	2014	
Chanthra 2015	349	511	43	71	3.2%	1.40 [0.84, 2.34]	2015	
Chen 2015	468	3099	40	383	8.1%	1.53 [1.08, 2.15]	2015	
Kim 2015	858	3402	83	389	15.0%	1.24 [0.96, 1.60]	2015	
Lu 2015	247	493	18	55	2.2%	2.06 [1.14, 3.72]	2015	
Sharkawy 2018	798	1028	32	47	1.8%	1.63 [0.87, 3.06]	2018	
Subtotal (95% CI)		9672		1096	38.5%	1.38 [1.18, 1.61]		
Total events	3311		287					
Heterogeneity: Chi² = 3.56, df = 5 (P = 0.61); I² = 0%								
Test for overall effect: Z = 4.04 (P < 0.0001)								
1.1.2 CHB.vs.HC+NC(Asian)								
Liao 2014	591	1139	71	151	8.1%	1.22 [0.86, 1.71]	2014	
Chanthra2015	349	511	43	71	3.2%	1.40 [0.84, 2.34]	2015	
Lu 2015	247	493	18	55	2.2%	2.06 [1.14, 3.72]	2015	
Kim 2015	858	3402	83	389	15.0%	1.24 [0.96, 1.60]	2015	
Chen 2015	468	3099	40	383	8.1%	1.53 [1.08, 2.15]	2015	
Subtotal (95% CI)		8644		1049	36.6%	1.36 [1.16, 1.60]		
Total events	2513		255					
Heterogeneity: Chi² = 3.26, df = 4 (P = 0.51); I² = 0%								
Test for overall effect: Z = 3.81 (P = 0.0001)								
1.1.3 CHB with HCC vs.CHB without HCC								
Chen 2013	466	1163	35	110	5.2%	1.43 [0.94, 2.18]	2013	
Clark 2013	217	402	20	48	2.2%	1.64 [0.90, 3.01]	2013	
Liao 2014	197	591	25	71	4.0%	0.92 [0.55, 1.54]	2014	
Kim 2015	263	858	20	83	3.4%	1.39 [0.82, 2.35]	2015	
Lu 2015	75	247	3	18	0.5%	2.18 [0.61, 7.76]	2015	
Chanthra2015	173	349	124	265	9.6%	1.12 [0.81, 1.54]	2015	
Subtotal (95% CI)		3610		595	24.9%	1.26 [1.04, 1.53]		
Total events	1391		227					
Heterogeneity: Chi² = 3.92, df = 5 (P = 0.56); I² = 0%								
Test for overall effect: Z = 2.31 (P = 0.02)								
Total (95% CI)		21926		2740	100.0%	1.34 [1.22, 1.48]		
Total events	7215		769					
Heterogeneity: Chi² = 11.33, df = 16 (P = 0.79); I² = 0%								
Test for overall effect: Z = 5.98 (P < 0.00001)								

0.01 0.1 1 10 100

Study or Subgroup	GG Events	Total	GT+TT Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	Odds Ratio M-H, Fixed, 95% CI
1.1.1 CHB vs.NC+HC								
Liao 2013	103	194	95	214	1.9%	1.42 [0.96, 2.09]	2013	
Liao 2013	194	403	189	457	4.0%	1.32 [1.00, 1.72]	2013	
Liao 2014	294	572	368	718	7.0%	1.01 [0.81, 1.25]	2014	
Kim 2015	494	1787	447	2004	13.4%	1.33 [1.15, 1.54]	2015	
Lu 2015	122	236	143	312	2.6%	1.26 [0.90, 1.77]	2015	
Chen 2015	257	1555	251	1927	8.2%	1.32 [1.10, 1.60]	2015	
Chanthra2015	170	232	222	350	2.1%	1.58 [1.10, 2.27]	2015	
Sharkawy 2018	546	693	284	392	3.4%	1.41 [1.06, 1.88]	2018	
Subtotal (95% CI)		**5672**		**6374**	**42.6%**	**1.29 [1.19, 1.41]**		
Total events	2180		1999					

Heterogeneity: Chi² = 7.01, df = 7 (P = 0.43); I² = 0%
Test for overall effect: Z = 6.04 (P < 0.00001)

Study or Subgroup	GG Events	Total	GT+TT Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	
1.1.2 CHB vs.NC+HC(Asian)								
Liao 2013	103	194	95	214	1.9%	1.42 [0.96, 2.09]	2013	
Liao 2013	194	403	189	457	4.0%	1.32 [1.00, 1.72]	2013	
Liao 2014	294	572	368	718	7.0%	1.01 [0.81, 1.25]	2014	
Lu 2015	122	236	143	312	2.6%	1.26 [0.90, 1.77]	2015	
Kim 2015	494	1787	447	2004	13.4%	1.33 [1.15, 1.54]	2015	
Chanthra2015	170	232	222	350	2.1%	1.58 [1.10, 2.27]	2015	
Chen 2015	257	1555	251	1927	8.2%	1.32 [1.10, 1.60]	2015	
Subtotal (95% CI)		**4979**		**5982**	**39.2%**	**1.28 [1.18, 1.40]**		
Total events	1634		1715					

Heterogeneity: Chi² = 6.61, df = 6 (P = 0.36); I² = 9%
Test for overall effect: Z = 5.60 (P < 0.00001)

Study or Subgroup	GG Events	Total	GT+TT Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	
1.1.3 CHB with HCC vs.CHB without HCC								
Clark 2013	117	203	127	247	2.1%	1.29 [0.88, 1.87]	2013	
Chen 2013	249	619	252	654	6.4%	1.07 [0.86, 1.34]	2013	
Liao 2014	104	294	118	368	3.0%	1.16 [0.84, 1.60]	2014	
Chanthra 2015	87	170	105	222	2.0%	1.17 [0.78, 1.74]	2015	
Kim 2015	160	494	123	447	3.8%	1.26 [0.95, 1.67]	2015	
Lu 2015	45	122	33	143	0.8%	1.95 [1.14, 3.33]	2015	
Subtotal (95% CI)		**1902**		**2081**	**18.2%**	**1.20 [1.06, 1.37]**		
Total events	762		758					

Heterogeneity: Chi² = 4.40, df = 5 (P = 0.49); I² = 0%
Test for overall effect: Z = 2.78 (P = 0.005)

Study or Subgroup	GG Events	Total	GT+TT Events	Total	Weight	Odds Ratio M-H, Fixed, 95% CI	Year	
Total (95% CI)		**12553**		**14437**	**100.0%**	**1.27 [1.20, 1.34]**		
Total events	4576		4472					

Heterogeneity: Chi² = 18.91, df = 20 (P = 0.53); I² = 0%
Test for overall effect: Z = 8.64 (P < 0.00001)

0.01 0.1 1 10 100

Supplemental Table S. Score of quality assessment

Criteria	Score
Representativeness of case	
Selected from population cancer registry	2
Selected from hospital	1
No method of selection described	0
Representativeness of control	
Population-based	3
Blood donors	2
Hospital-based	1
Not described	0
Ascertainment of NHL case	
Histopathologic confirmation	2
by patient medical record	1
Not described	0
Control selection	
Controls matched with cases by age and sex	2
Controls matched with cases only by age or by sex	1
Not matched or not descried	0
Genotyping examination	
Genotyping done blindly and quality control	2
Only genotyping done blindly or quality control	1
Unblinded and without quality control	0
HWE	
HWE in the control group	1
HWD in the control group or not mentioned	0
Total sample size	
> 1000	3
501 - 1000	2
201 - 500	1
$\leq$ 200	0