

評価対象論文リスト(要因:ヘリコバクター・ピロリ菌の感染・ヘリコバクター・ピロリ菌の除菌治療、アウトカム:胃がん)

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(ヘリコバクター・ピロリ菌の感染)

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■コホート研究

Reference			Study subjects						Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	Magnitude of association	Comments	
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race								
Watanabe Y	Helicobacter pylori infection and gastric cancer. A nested case-control study in a rural	1997	1987-1995	2,858 ≥35 yr	population-based	incidence	45	Japanese	IgG (-) IgG (+)	1.00 (Reference) 1.84 (0.59-5.72)	0.2912			↑	<u>Nested case-control study.</u> Matched for age,	
Uemura N	Helicobacter pylori infection and the development of gastric cancer	2001	1990- mean 7.8yr	1,526 869 men 657 women mean age 52, range, 20 to 76	Hospital-based (subjects with duodenal ulcers, gastric hyperplasia, or nonulcer dyspepsia)	incidence	36	Japanese	H.pylori (-) H.pylori (+) Grade of atrophy None or mild Moderate Severe Distribution of Antrum Pangastritis Corpus predominant Intestinal metaplasia Absent Present	0 36 NA 1.00 (Reference) 1.7 (0.8-3.7) 4.9 (2.8-19.2) 1.00 (Reference) 15.6 (6.5-36.8) 34.5 (7.1-166.7) 1.0 6.4 (2.6-16.1)				↑ ↑ ↑	H.pylori infection was assessed by histologic examination, serologic testing, and rapid ureasetests and was defined by a positive result on any of these tests	
Yamagata H	Impact of Helicobacter pylori infection on gastric cancer incidence in a general Japanese population: the Hisayama study	2006	1988-1997 9 yr	2,602 1,070 men mean age 57yr 1,532 women mean age 59yr	population-based (Hisaysama study) (subjects without a history of gastrectomy or gastric cancer)	incidence	67 48 men 19 women	Japanese	Men IgG (-) IgG (+) Women IgG (-) IgG (+) Proximal one third IgG (-) IgG (+) Distal two thirds IgG (-) IgG (+) Intestinal IgG (-) IgG (+) Diffuse IgG (-) IgG (+)	5 40 6 11 1.00 (Reference) 1.29 (0.28-6.09) 1.00 (Reference) 3.66 (1.12-11.9) 1.00 (Reference) 2.26 (0.79-6.45) 1.00 (Reference) 2.02 (0.45-9.03)		Adjusted for age, BMI, serumcholesterol level, fasting plasma glucose level, smoking habits, alcohol intake, history of pepticulcer disease, and dietary factors (intake of totalenergy, fat, salt, vitaminA, vitamin B1, vitamin B2, vitamin C, and dietarv fibers)		↑ ↑ ↑ - - ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑		
Yatsuya H	Individual and joint impact of family history and Helicobacter pylori infection on the risk of stomach cancer: a nested case-control study	2004	1988-1997	110, 792 46,465 men 64,327 women Family history: negative Hp negative: 46 Hp positive: 212 Family history: positive Hp negative: 9 Hp positive: 40 Women Family history: negative Hp negative: 44 Hp positive: 192 Family history: positive Hp negative: 6 Hp positive: 47	population-based (JACC Study)	incidence	202	Japanese	Men Family history: Hp negative Hp positive Family history: Hp negative Hp positive Women Family history: Hp negative Hp positive Family history: Hp negative Hp positive	12 77 2 14 7 66 2 22	1.00 (Reference) 1.81 (0.79, 4.15) 0.72 (0.11, 4.86) 1.66 (0.54, 5.12) 1.00 (Reference) 2.98 (1.10, 8.02) 1.84 (0.17, 19.9) 5.10 (1.58, 16.5)		Adjusted for number of siblings, smoking status, drinking habit self-rated preference of salty foods, consumption of green-yellow vegetables, citrus fruits and green tea, educational level		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	<u>Nested case-control study.</u> Matched for gender, age at recruitment, study area.
Sasazuki S	Effect of Helicobacter pylori infection combined with CagA and pepsinogen status on gastric cancer development among Japanese men and women: a nested case-control	2006	1990-2004 15 yr	123,576	population-based (JPHC Study)	incidence	511	Japanese	IgG (+) vs IgG (-) Total Upper third Distal Differentiated Undifferentiated	478 37 344 281 149	5.1 (3.2-8.0) 3.7 (0.2-68.4) 5.1 (3.0-8.6) 5.8 (3.1-10.8) 5.1 (2.1-12.3)		Adjusted for smoking status, consumption of fish gut, green_yellow vegetables, other		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑	<u>Nested case-control study.</u> Matched for age, sex, resident area, blood donation date,

study

CagA (-)	121	1.00 (Reference)
CagA (+)	390	1.5 (1.1-2.1)
IgG (-)		
CagA (-)	6	1.00 (Reference)
CagA (+)	27	3.2 (1.1-9.0)
IgG (+)	478	11.4 (4.4-29.2)
CagA (-)	115	9.5 (3.6-25.0)
CagA (+)	363	12.5 (4.8-32.5)
IgG (+) and/or CagA	505	10.2 (4.0-25.9)

vegetables, fruit,
green tea, BMI,
and family
history of gastric
cancer

↑ ↑
↑ ↑ ↑
↑ ↑ ↑
↑ ↑ ↑

and fasting times at
blood donation.

■ Summary estimate

Reference			Include study				Sex	Event	Category	Number among cases	Relative risk (95%CI or p)	Magnitude of association
Author	Title	Year	Author	Ref No	Year	Study period						
Taniyama Y	Estimation of lifetime cumulative incidence and mortality risk of gastric cancer	2017	Watabe	10	2005	1995-1997	Men and women	Incidence	H. pylori (-), atrophic gastritis (-)	7	1.00 (Reference)	
									H. pylori (+), atrophic gastritis (-)	6	1.10 (0.40–3.40)	
									H. pylori (+), atrophic gastritis (+)	18	6.00 (2.40–14.50)	
									H. pylori (-), atrophic gastritis (+)	12	8.20 (3.20–21.50)	
									H. pylori (-), atrophic gastritis (-)	2	1.00 (Reference)	
			Mizuno	11	2010	1987-1996	Men and women	Incidence	H. pylori (+), atrophic gastritis (-)	15	4.20 (0.96–18.40)	
									H. pylori (+), atrophic gastritis (+)	41	11.23 (2.71–46.51)	
									H. pylori (-), atrophic gastritis (+)	3	14.81 (2.47–88.80)	
									H. pylori (-), atrophic gastritis (-)	2	1.00 (Reference)	
			Yoshida	12	2013	1994-2011	Men	Incidence	H. pylori (+), atrophic gastritis (-)	37	8.90 (2.70–54.70)	
									H. pylori (+), atrophic gastritis (+)	44	17.70 (5.40–108.60)	
									H. pylori (-), atrophic gastritis (+)	4	69.70 (13.60–502.90)	
									H. pylori (-), atrophic gastritis (-)	12	1.00 (Reference)	
			Charvat	6	2016	1993-2009	Men and women	Incidence	H. pylori (+), atrophic gastritis (-)	104	7.58 (4.16–13.79)	
									H. pylori (+), atrophic gastritis (+)	272	13.86 (7.76–24.75)	
									H. pylori (-), atrophic gastritis (+)	24	14.09 (7.03–28.26)	
									Overall			
									H. pylori (-), atrophic gastritis (-)	23	1.00 (Reference)	
									H. pylori (+), atrophic gastritis (-)	162	4.47 (1.83–10.03)	↑ ↑ ↑
									H. pylori (+), atrophic gastritis (+)	375	11.06 (4.86–25.58)	↑ ↑ ↑
									H. pylori (-), atrophic gastritis (+)	43	14.78 (6.46–38.21)	↑ ↑ ↑

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■系統的レビュー・メタ解析

Reference			Include study				Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association			
Author	Title	Year	Ref No.	First author	Year	Study location						Event (*Definition)		
Lin Y, et al.	Effects of Helicobacter pylori eradication on gastric cancer incidence in the Japanese population: a systematic evidence review	2021												
			9	Uemura	2001			Prospective cohort study	Eradicated vs Persistent infection	0.05 (0.00, 0.87)	4.4			
			19	Kato	2006			Retrospective study (observational)		0.36 (0.22, 0.59)	15.3			
			18	Takenaka	2007			Retrospective cohort study		0.23 (0.07, 0.74)	2.5			
			20	Ogura	2008			Retrospective study		0.35 (0.13, 0.90)	4.4			
			24	Yokoyama	2008	Japan		Retrospective study		0.39 (0.11, 1.38)	2.7			
			11	Yanaoka	2009			Prospective cohort study		0.70 (0.28, 1.75)	3.7			
			21	Mabe	2009			Prospective cohort study		0.49 (0.24, 0.98)	4.8			
			22	Terao	2010			Retrospective cohort study		0.21 (0.06, 0.65)	7			
			12	Watanabe	2012			Prospective cohort study		0.10 (0.01, 1.76)	1.8			
			17	Take	2015			Prospective cohort study		0.43 (0.20, 0.94)	4.5			
										Subtotal	0.34 (0.25, 0.46)	50.9	↓↓↓	
											Subjects with gastric cancer at baseline			
						13	Uemura	1997			Non-randomized trial	0.08 (0.00, 1.38)	1.9	
						23	Kato	2001			Retrospective study	0.43 (0.21, 0.87)	9.6	
						26?	Kodashima	2007			Retrospective study	0.97 (0.24, 3.88)	1.1	
						14	Shiotani	2008			Prospective study	1.24 (0.17, 8.85)	0.5	
						10	Fukase	2008		Japan	Randomized controlled trial (open-label, multi-ce	0.37 (0.17, 0.78)	7.1	
						25	Goto	2009			Retrospective study	0.64 (0.31, 1.32)	5.6	
			22	Terao	2010		Retrospective cohort study	0.24 (0.03, 1.96)		1.3				
			16	Maehata	2012		Retrospective study	0.59 (0.30, 1.19)	5					
			27	Hasatani	2016		Retrospective study	0.62 (0.39, 1.00)	12.4					
			15?	Nakata	2019		Propensity score-matched retrospective study	0.33 (0.12, 0.39)	4.4					
							Subtotal	0.50 (0.39, 0.66)	49.1	↓↓↓				
							Total	0.42 (0.35, 0.51)	100	↓↓↓				