

評価対象論文リスト(要因:歯の本数、アウトカム:認知症・認知機能低下)

評価判定日:2024/11/29

①既存の系統的レビュー・メタ解析・統合解析

1	Asher S, Stephen R, Mäntylä P, Suominen AL, Solomon A. Periodontal health, cognitive decline, and dementia: A systematic review and meta-analysis of longitudinal studies. <i>J American Geriatrics Society</i> . 2022;70(9):2695-2709. doi:10.1111/jgs.17978
2	Qi X, Zhu Z, Plassman BL, Wu B. Dose-response meta-analysis on tooth loss with the risk of cognitive impairment and dementia. <i>Journal of the American Medical Directors Association</i> . 2021;22(10):2039-2045. doi:10.1016/j.jamda.2021.05.009
3	Dioguardi M, Di Gioia G, Caloro GA, et al. The association between tooth loss and alzheimer's disease: a systematic review with meta-analysis of case control studies. <i>Dentistry Journal</i> . 2019;7(2):49. doi:10.3390/dj7020049
4	Fang W li, Jiang M jun, Gu B bei, et al. Tooth loss as a risk factor for dementia: systematic review and meta-analysis of 21 observational studies. <i>BMC Psychiatry</i> . 2018;18(1):345. doi:10.1186/s12888-018-1927-0
5	Oh B, Han DH, Han KT, et al. Association between residual teeth number in later life and incidence of dementia: A systematic review and meta-analysis. <i>BMC Geriatr</i> . 2018;18(1):48. doi:10.1186/s12877-018-0729-z
6	Tonsekar PP, Jiang SS, Yue G. Periodontal disease, tooth loss and dementia: Is there a link? A systematic review. <i>Gerodontology</i> . 2017;34(2):151-163. doi:10.1111/ger.12261
7	Shen T, Lv J, Wang L, Wang W, Zhang D. Association between tooth loss and dementia among older people: a meta-analysis. <i>Int J Geriat Psychiatry</i> . 2016;31(8):953-955. doi:10.1002/gps.4396
8	Cerutti-Kopplin D, Feine J, Padilha DM, et al. Tooth loss increases the risk of diminished cognitive function: a systematic review and meta-analysis. <i>JDR Clinical &amp; Translational Research</i> . 2016;1(1):10-19. doi:10.1177/2380084416633102
9	Wu B, Fillenbaum GG, Plassman BL, Guo L. Association between oral health and cognitive status: a systematic review. <i>J American Geriatrics Society</i> . 2016;64(4):739-751. doi:10.1111/jgs.14036

②日本人の個別疫学研究

10	Tsuneishi M, Yamamoto T, Yamaguchi T, Kodama T, Sato T. Association between number of teeth and alzheimer's disease using the national database of health insurance claims and specific health checkups of japan. Mogi M, ed. <i>PLoS ONE</i> . 2021;16(4):e0251056. doi:10.1371/journal.pone.0251056
11	Egashira R, Mizutani S, Yamaguchi M, et al. Low tongue strength and the number of teeth present are associated with cognitive decline in older japanese dental outpatients: a cross-sectional study. <i>IJERPH</i> . 2020;17(22):8700. doi:10.3390/ijerph17228700
12	Hatta K, Gondo Y, Kamide K, et al. Occlusal force predicted cognitive decline among 70- and 80-year-old Japanese: A 3-year prospective cohort study. <i>Journal of Prosthodontic Research</i> . 2020;64(2):175-181. doi:10.1016/j.jpjor.2019.07.002
13	Kato H, Takahashi Y, Iseki C, et al. Tooth loss-associated cognitive impairment in the elderly: a community-based study in japan. <i>Intern Med</i> . 2019;58(10):1411-1416. doi:10.2169/internalmedicine.1896-18
14	Saito S, Ohi T, Murakami T, et al. Association between tooth loss and cognitive impairment in community-dwelling older Japanese adults: a 4-year prospective cohort study from the Ohasama study. <i>BMC Oral Health</i> . 2018;18(1):142. doi:10.1186/s12903-018-0602-7
15	Takeuchi K, Ohara T, Furuta M, et al. Tooth loss and risk of dementia in the community: the hisayama study. <i>J American Geriatrics Society</i> . 2017;65(5). doi:10.1111/jgs.14791
16	Iwasaki M, Kimura Y, Yoshihara A, et al. Oral health status in relation to cognitive function among older Japanese. <i>Clinical &amp; Exp Dental Res</i> . 2015;1(1):3-9. doi:10.1002/cre2.2

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18	Yamamoto T, Kondo K, Hirai H, Nakade M, Aida J, Hirata Y. Association between self-reported dental health status and onset of dementia: a 4-year prospective cohort study of older Japanese adults from the Aichi Gerontological Evaluation Study (Ages) Project. <i>Psychosom Med</i> . 2012;74(3):241-248. doi:10.1097/PSY.0b013e318246dff
19	Takata Y, Ansai T, Soh I, et al. Cognitive function and number of teeth in a community-dwelling elderly population without dementia. <i>J of Oral Rehabilitation</i> . 2009;36(11):808-813. doi:10.1111/j.1365-2842.2009.01998.x
20	重富俊雄, 浅野辰則, 加藤武司, 宇佐美雄司, 上田実, 河野和彦. A study on oral function and aging. An epidemiological risk factor for dementia. Published online 1998. doi:10.11277/stomatology1952.47.403

■メタ解析、系統的レビュー

Reference			Include study					Design	Category	Relative risk (95% CI or p)	Weight	Magnitude of association	Outcome		
Author	Title	Year	Ref No.	First author	Year	Study period	Study location							Event (*Definition)	
Aasher S	Periodontal health, cognitive decline, and dementia: A systematic review and meta-analysis of longitudinal studies.	2022	46	Saito	2018	2005-2016	Japan	Incidence	コホート研究	Control	1.00 (ref)	N/A	-	cognitive impairment	
										Multiple tooth loss (%)	-	N/A	-		
			51	Okamoto	2015	2007-2012	Japan	Incidence	コホート研究	number of remaining teeth at baseline	1.00 (ref)	N/A	-		Mild Memory Impairment
										number of remaining teeth at follow-up	-	N/A	-		
			52	Okamoto	2017	2007-2012	Japan	Incidence	Case-Control Study	25-32 (Tooth category at baseline, the number of remaining teeth at baseline)	1.00 (ref)	N/A	-		Mild Memory Impairment
										17-24	-	N/A	-		
										9-16	-	N/A	-		
66	Takeuchi	2017	2007-2012	Japan	Incidence	コホート研究	0-8	-	N/A	-	all-cause dementia, Alzheimer's disease (AD), and vascular dementia (VaD)				
							20- (Number of Remaining Teeth)	1.00 (ref)	N/A	-					
							10-19	-	N/A	-					
							1-9	-	N/A	-					
73	Yamamoto	2012	2003-2007	Japan	Incidence	コホート研究	Few teeth without dentures	-	N/A	-	Dementia				
							Few teeth with dentures	-	N/A	-					
							Missing	-	N/A	-					
							20- teeth (Dental status)	1.00 (ref)	N/A	-					
Qi X	Dose-Response Meta-Analysis on Tooth Loss With the Risk of Cognitive Impairment and Dementia.	2021	19	Saito	2018	2005-2016	Japan	Incidence	コホート研究	Control	1.00 (ref)	N/A	-	cognitive impairment	
										Multiple tooth loss (%)	3.31(1.07,10.20)	3.7	-		
			29	Okamoto	2015	2007-2012	Japan	Incidence	コホート研究	number of remaining teeth at baseline	1.00 (ref)	N/A	-	Mild Memory Impairment	
										number of remaining teeth at follow-up	2.39(1.48,3.86)	14.21	-		
			34	Yamamoto	2012	2003-2007	Japan	Incidence	コホート研究	20- (Number of Remaining Teeth)	1.00 (ref)	N/A	-	all-cause dementia, Alzheimer's disease (AD), and vascular dementia (VaD)	
10-19	-	N/A								-					
Dioguardi M	The Association between Tooth Loss and Alzheimer's Disease: a Systematic Review with Meta-Analysis of Case Control Studies.	2019	24	Takeuchi	2017	2007-2012	Japan	Incidence	コホート研究	1-9	-	N/A	-	all-cause dementia, Alzheimer's disease (AD), and vascular dementia (VaD)	
										0	-	N/A	-		
			40	Okamoto	2015	2007-2012	Japan	Incidence	コホート研究	number of remaining teeth at baseline	1.00 (ref)	N/A	-	Mild Memory Impairment	
										number of remaining teeth at follow-up	-	N/A	-		
Fang WL	Tooth loss as a risk factor for dementia: systematic review and meta-analysis of 21 observational studies	2018	22	Saito	2013	2012	Japan	Incidence	cross-sectional study	22-32 (Number of remaining teeth)	1.00 (ref)	N/A	-	Mini-Mental State Examination (MMSE)	
										11-21	-	N/A	-		
			23	Okamoto	2010	2007-2008	Japan	Incidence	cross-sectional study	0-10	-	N/A	-	mild memory impairment and cognitive impairment	
										Reference: 22-32 of remaining teeth	1.00 (ref)	N/A	-		
			30	Takeuchi	2017	2007-2012	Japan	Incidence	コホート研究	11-21	-	N/A	-	all-cause dementia, Alzheimer's disease (AD), and vascular dementia (VaD)	
										0-10	-	N/A	-		
										20- (Number of Remaining Teeth)	1.00 (ref)	N/A	-		
										10-19	-	N/A	-		
32	Yamamoto	2012	2003-2007	Japan	Incidence	コホート研究	1-9	-	N/A	-	Dementia				
							0	-	N/A	-					
							20- teeth (Dental status)	1.00 (ref)	N/A	-					
Oh B	Association between residual teeth number in later life and	2018							コホート研究	20- (Number of Remaining Teeth)	1.00 (ref)	N/A	-		
										10-19	-	N/A	-		

	incidence of dementia: A systematic review and meta-analysis		22	Takeuchi	2017	2007–2012	Japan	Incidence	コホート研究	1–9	-	N/A	-	
										0	-	N/A	-	all-cause dementia, Alzheimer’s disease (AD), and vascular dementia (VaD)
										20– teeth (Dental status)	1.00 (ref)	N/A	-	
										-19 teeth with/without dentures	-	N/A	-	
										Few teeth with dentures	-	N/A	-	
										Few teeth without dentures	-	N/A	-	
			27	Yamamoto	2012	2003–2007	Japan	Incidence	コホート研究	Missing	-	N/A	-	Dementia
Tonsekar PP	Periodontal disease, tooth loss and dementia: Is there a link? A systematic review	2017								22–32 (Number of remaining teeth)	1.00 (ref)	N/A	-	
										11–21	-	N/A	-	
			27	Saito	2013	2012	Japan	Incidence	cross-sectional study	0–10	-	N/A	-	Mini-Mental State Examination (MMSE)
Cerutti-Kopplin D	Tooth Loss Increases the Risk of Diminished Cognitive Function: A Systematic Review and Meta-analysis	2016								20– teeth (Dental status)	1.00 (ref)	N/A	-	
										-19 teeth with/without dentures	-	N/A	-	
										Few teeth with dentures	-	N/A	-	
										Few teeth without dentures	-	N/A	-	
			N/A	Yamamoto	2012	2003–2007	Japan	Incidence	コホート研究	Missing	-	N/A	-	Dementia
Wu B	Association Between Oral Health and Cognitive Status: A Systematic Review	2016								20– teeth (Dental status)	1.00 (ref)	N/A	-	
										-19 teeth with/without dentures	-	N/A	-	
										Few teeth with dentures	-	N/A	-	
										Few teeth without dentures	-	N/A	-	
			23	Yamamoto	2012	2003–2007	Japan	Incidence	コホート研究	Missing	-	N/A	-	Dementia