

Supplementary Table 1a

Sensory domain measures

Sensory	Controls	All TMD cases	TMD subgroups		
	Mean (SD)	Mean (SD)	Mean (SD)		
			+ 0 pain	+ 1 pain	+ ≥2 pain
Heat pain tolerance (°C)*	47.2 (1.5)	47.0 (1.8)	46.6 (0.8)	47.3 (1.5)	46.7 (2.2)
Heat pain temporal summation* (50°C)*	6.5 (4.5)	8.1 (5.0)	7.7 (4.0)	7.9 (5.1)	8.3 (5.1)
Heat pain single rating (50°C VAS)	31.4 (22.5)	32.9 (21.3)	27.3 (17.3)	33.6(21.4)	33.3(22.0)
Pressure pain threshold (Lat. Epi)*	5.1 (1.2)	4.5 (1.3)	4.5 (1.2)	4.8 (1.3)	4.2 (1.2)
Widespread palpation tenderness (%)*	3	48	50	31	67
# of tender points (0-18)*	0.5 (1.3)	6.1 (5.9)	4.6 (4.5)	4.1 (4.7)	8.6 (6.7)

Abbreviations: TMD, temporomandibular disorders; Lat. Epi, lateral epicondyle.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=128~131; for TMD cases: n=156~159 (TMD + 0 pain: 13~14; TMD +1 pain: 76~78; TMD + ≥2 pain: 67)

*p<0.10 between control and TMD subgroups

Supplementary Table 1b

Sensory domain: % of individuals within risk zones

Sensory	Controls	All TMD cases	TMD subgroups		
	(%)	(%)	(%)		
			+ 0 pain	+ 1 pain	+ ≥2 pain
Heat pain tolerance (°C)	26	30	43	27	31
Heat pain temporal summation (50°C)	28	40	46	38	40
Heat pain single rating (50°C VAS)	26	29	34	29	28
Pressure pain threshold (Lat. Epi)	25	35	43	27	43
Widespread palpation tenderness	3	49	50	31	67
# of tender points*	22	78	71	73	85

Abbreviations: TMD, temporomandibular disorders; Lat. Epi, lateral epicondyle.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=128~131; for TMD cases: n=156~159 (TMD + 0 pain: 13~14; TMD +1 pain: 76~78; TMD + ≥2 pain: 67)

* The 75 percentile of controls has "0" tender points.

Supplementary Table 2a

Autonomic domain measures

Autonomic	Controls Mean (SD)	All TMD cases Mean (SD)	TMD subgroups		
			+ 0 pain	+ 1 pain	+ ≥2 pain
SBP (mmHg)*	111 (10)	115 (10)	112 (6)	113 (10)	117 (11)
DBP (mmHg)*	68 (7)	71 (7)	71 (5)	70 (6)	72 (8)
HR (beats/min)*	71 (11)	74 (13)	71 (10)	72 (12)	77 (15)
SBP x HR*	7881 (1633)	8564 (1977)	8022 (1342)	8238 (1737)	9052 (2245)

Abbreviations: TMD, temporomandibular disorders; SBP, systolic blood pressure; DBP, diastolic blood pressure; HR, heart rate.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=130; for TMD cases: n=158 (TMD + 0 pain: 14; TMD +1 pain: 77; TMD + ≥2 pain: 67)

*p<0.10 between control and TMD subgroups

Supplementary Table 2b

Autonomic domain: % of individuals within risk zones

Autonomic	Controls (%)	All TMD cases (%)	TMD subgroups		
			+ 0 pain	+ 1 pain	+ ≥2 pain
SBP	26	46	29	39	58
DPB	27	43	29	36	54
HR	25	32	21	30	37
SBP*HR	25	37	29	30	46

Abbreviations: TMD, temporomandibular disorders; SBP, systolic blood pressure; DBP, diastolic blood pressure; HR, heart rate.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=130; for TMD cases: n=158 (TMD + 0 pain: 14; TMD +1 pain: 77; TMD + ≥2 pain: 67)

Supplementary Table 3a

Inflammatory domain measures

Inflammatory	Controls	All TMD cases	TMD subgroups		
	Mean (SD)	Mean (SD)	+ 0 pain	+ 1 pain	+ ≥2 pain
IL-6*	2.0 (2.1)	2.7 (2.2)	2.1 (1.7)	2.6 (2.2)	2.9 (2.4)
IL-8	47.3(40.1)	54.2 (40.5)	46.8 (27.5)	58.1 (44.3)	51.4 (38.3)
TNF-α	3.1 (1.5)	3.4 (1.5)	3.1 (1.5)	3.3 (1.4)	3.6 (1.7)
MCP-1*	75.6 (21.7)	91.4 (24.2)	82.2 (23.7)	89.1 (24.3)	95.9 (23.7)
MIP-1β*	57.1 (31.8)	65.2 (34.7)	65.6 (37.6)	57.6 (31.3)	73.9 (36.1)
G-CSF	23.0 (11.4)	23.7 (11.6)	20.8 (8.4)	24.8 (12.7)	22.9 (11.5)
TPO*	561.5 (190.2)	643.0 (169.1)	679.9 (159.1)	636.0 (167.8)	645.0 (174.3)
VEGF*	84.2 (70.3)	106.0 (72.4)	147.7 (68.1)	101.5 (70.6)	104.1 (74.2)
ENA-78	7748.9(3975.0)	8651.9(3820.0)	8187.1(3108.2)	8518.7(4038.7)	8905.7(3731.1)
FGF*	126.1(101.7)	160.0 (131.2)	127.2(117.3)	156.6(128.1)	171.1 (137.9)
IL-1ra*	361.5 (213.2)	466.3 (301.7)	327.3 (320.5)	469.1 (286.8)	493.0 (310.8)

Abbreviations: TMD, temporomandibular disorders; IL-6, interleukin-6; IL-8, interleukin-8; TNF-α, tumor necrosis factor-α; MCP-1, monocyte chemotactic protein-1; MIP-1β, macrophage inflammatory protein-1β; G-CSF, granulocyte colony stimulating factor; TPO, thrombopoietin; VEGF, vascular endothelial growth factor ; ENA-78, epithelial-derived neutrophil-activating peptide 78; FGF, fibroblast growth factor basic; and IL-1ra, interleukin-1 receptor antagonist.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=117~ 126; for TMD cases: n=135~154 (TMD + 0 pain: 10~14; TMD +1 pain: 69 ~75; TMD + ≥2 pain: 56 ~ 65)

*p<0.10 between control and TMD subgroups

Supplemental Table 3b

Inflammatory domain: % of individuals within risk zones

Inflammatory	Controls (%)	All TMD cases (%)	TMD subgroups (%)		
			+ 0 pain	+ 1 pain	+ ≥2 pain
IL-6	25	30	21	29	32
IL-8	25	38	14	32	26
TNF- α	26	29	29	25	34
MCP-1	26	53	40	48	63
MIP-1 β	25	29	36	19	40
G-CSF	26	28	20	30	27
TPO	26	41	50	43	36
VEGF	26	36	60	30	39
ENA-78	25	32	21	33	34
FGF	25	31	21	23	43
IL-1ra	25	19	43	16	17

Abbreviations: TMD, temporomandibular disorders; IL-6, interleukin-6; IL-8, interleukin-8; TNF- α , tumor necrosis factor- α ; MCP-1, monocyte chemotactic protein-1; MIP-1 β , macrophage inflammatory protein-1 β ; G-CSF, granulocyte colony stimulating factor; TPO, thrombopoietin; VEGF, vascular endothelial growth factor ; ENA-78, epithelial-derived neutrophil-activating peptide 78; FGF, fibroblast growth factor basic; and IL-1ra, interleukin-1 receptor antagonist.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=123~ 126; for TMD cases: n=135 ~154 (TMD + 0 pain: 10~14; TMD +1 pain: 69 ~75; TMD + \geq 2 pain: 56 ~65)

Supplementary Table 4a

Psychological domain measures

Psychological	Controls Mean (SD)	All TMD cases Mean (SD)	TMD subgroups		
			+ 0 pain	+ 1 pain	+ ≥2 pain
Stai_1*	29.2 (6.3)	34.5 (7.6)	32.3 (7.7)	33.5 (6.4)	36.1 (8.6)
Stai_2*	31.1 (7.7)	37.8 (9.7)	35.9 (8.8)	37.1 (9.8)	39.1 (9.6)
SCL90Depression*	15.7 (3.2)	19.8 (6.9)	17.5 (5.2)	19.1 (6.3)	21.2 (7.6)
PCS*	6.0 (5.9)	11.2 (10.6)	6.2 (8.3)	11.2 (10.5)	12.4 (11.0)
PILL*	85.3 (16.7)	115.4 (24.6)	98.4 (20.1)	109.2 (20.5)	126.5 (25.5)

Abbreviations: TMD, temporomandibular disorders; Stai_1, Spielberger Trait Anxiety score; Stai_2, Spielberger State Anxiety score; SCL90 Depression, Symptoms Checklist – 90 Revised depression subscale; PCS, Pain Catastrophizing Scale; PILL, Pennebaker Inventory of Limbic Languidness.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=120~ 131; for TMD cases: n=149 ~159 (TMD + 0 pain: 14; TMD +1 pain: 73~78; TMD + ≥2 pain:62~67)

*p<0.10 between control and TMD subgroups

Supplementary Table 4b

Psychological domain: % of individuals within risk zones

Psychological	Controls (%)	All TMD cases (%)	TMD subgroups		
			+ 0 pain	+ 1 pain	+ ≥2 pain
Stai_1	26	57	43	51	67
Stai_2	27	52	43	52	64
SCL90 Depression	27	62	43	59	69
PCS	27	41	29	44	48
PILL	25	79	50	72	94

Abbreviations: TMD, temporomandibular disorders; Stai_1, Spielberger Trait Anxiety score; Stai_2, Spielberger State Anxiety score; SCL90 Depression, Symptoms Checklist – 90 Revised depression subscale; PCS, Pain Catastrophizing Scale; PILL, Pennebaker Inventory of Limbic Languidness.

Note: Number of study subjects included in each group for pain characteristics varies based on available information. For controls: n=120~ 131; for TMD cases: n=149 ~159 (TMD + 0 pain: 14; TMD +1 pain: 73~78; TMD + ≥2 pain:62~67)