Table S1 Comparisons of disease characteristics among RA patients in BMI categorization

Characteristics	Underweight (*n*=81)	Normal weight (*n*=265)	Overweight (*n*=92)	Obese (*n*=19)	*P*[#]
Female, n (%)	60 (74.1)	226 (85.3)	76 (82.6)	16 (84.2)	0.140
Age, yrs, median (IQR)	40 (29~58) **	50 (42~58)	54 (47~62) **	51 (47~56)	**<0.001**
Disease duration, month, median (IQR)	36 (18~99)	57 (24~118)	57 (24~120)	72 (36~144)	0.379
BF%, %, mean ±SD	21.1 ±7.3***	29.0 ±6.6	36.3 ±5.1***	41.1 ±6.2***	**<0.001**
ASMI, kg/m^2, mean ±SD	5.3 ±0.9***	5.9 ±0.8	6.5 ±0.8***	7.0 ±0.8***	**<0.001**
Smoking habits					0.735
Active smoking, n (%)	16 (19.8)	34 (12.8)	15 (16.3)	3 (15.8)	
Exposure to second hand smoke, n (%)	22 (27.2)	80 (30.2)	30 (32.6)	7 (36.8)	
Without exposure to smoke, n (%)	43 (53.1)	151 (57.0)	47 (51.1)	9 (47.4)	
Positive RF, n (%)	53 (65.4)	179 (67.5)	55 (59.8)	13 (68.4)	0.595
Positive ACPA, n (%)	51 (63.0)	189 (71.3)	62 (67.4)	15 (78.9)	0.387
Core disease activity indicators					
Morning stiffness, min, median (IQR)	0 (0~10)	0 (0~10)	0 (0~30) *	0 (0~0) *	**0.023**
28TJC, median (IQR)	2 (0~5)	2 (0~5)	3 (0~9)	1 (0~3)	0.462
28SJC, median (IQR)	1 (0~4)	1 (0~4)	1 (0~4)	1 (0~1)	0.305
PtGA, median (IQR)	3 (1~5)	3 (1~6)	2 (0~5)	2 (0~4)	0.527
PrGA, median (IQR)	3 (1~5)	3 (1~5)	2 (0~5)	2 (0~4)	0.518
Pain VAS, median (IQR)	2 (2~4)	2 (2~4)	2 (1~4)	2 (1~4)	0.712
ESR, (mm/h), median (IQR)	27 (12~48)	30 (16~50)	25 (15~41)	27 (13~48)	0.620
CRP, (mg/L), median (IQR)	4.9 (3.3~18.1)	4.6 (3.3~15.9)	4.3 (3.3~10.3)	3.4 (3.3~7.2)	0.786
DAS28-CRP, median (IQR)	3.2 (2.1~4.2)	3.3 (2.0~4.5)	3.2 (2.2~4.4)	2.6 (1.7~3.4)	0.459
SDAI, median (IQR)	11.1 (4.8~19.6)	11.3 (4.3~22.0)	11.3 (4.5~24.9)	7.3 (2.3~11.5)	0.383
CDAI, median (IQR)	10 (4~18)	10 (4~20)	10 (3~24)	7 (2~11)	0.410
Functional indicators					
HAQ-DI, median (IQR)	0.13 (0~0.81)	0.25 (0~0.75)	0.25 (0~0.84)	0 (0~0.25)	0.141
Functional limitation, n (%)	14 (17.3)	44 (16.6)	11 (12.0)	1 (5.3)	0.413
Radiographic assessment					
mTSS, median (IQR)	22.0 (5.0~51.0)	12.0 (4.0~32.5)	11.8 (5.5~32.0)	11.5 (5.0~37.0)	0.411
JSN subscore, median (IQR)	7.0 (0.5~22.3) *	3.0 (0~12.3)	1.8 (0~12.8)	1.5 (0~18.5)	**0.038**
JE subscore, median (IQR)	14.0 (3.5~30.3)	9.5 (3.0~21.8)	10.0 (4.5~21.8)	10.0 (4.0~18.5)	0.632
Bony erosion, n (%)	75 (92.6)	246 (92.8)	86 (93.5)	19 (100)	0.681
RJD, n (%)	53 (65.4)	148 (55.8)	51 (55.4)	11 (57.9)	0.468

[#] Comparison in four BMI categorization by Kruskal-Wallis test. *Compared with normal weight patients, * P<0.05, ** P<0.01, *** P<0.001.

Underweight, BMI<18.5 kg/m^2; Normal weight, 18.5 kg/m^2≤BMI<24 kg/m^2; Overweight, 24 kg/m^2≤BMI<28 kg/m^2; Obese, BMI≥28 kg/m^2; Functional limitation, HAQ-DI>1; Bony erosion, JE subscore>0; RJD, radiographic joint damage (mTSS>10); IQR, interquartile range.