

Supplementary Table I. The demographic data of all studies.

First author / year of publication	Age (years)	BMI (kg/m ²)	Gender Male/Female ratio	Disease duration (years)
Kim SK <i>et al.</i> 2017 ¹⁶	37.8 (12.7)	23.3 (3.5)	3.6	5.0 (6.0)
Maas F <i>et al.</i> , 2015 ¹⁷	42.3 (11.1)	26.4 (4.1)	2.2	14 (7–23)*
Kim K <i>et al.</i> 2012 ¹⁸	AS=35.1 (1.1) HC=29.9 (1.0)	AS=24.4 (0.4) HC=23.4 (0.5)	all subjects are male	7.3 (0.6)
Aydin SZ <i>et al.</i> 2016 ¹⁹	AS= 34 (18–76)* HC=35 (20–80)*	AS=25.7 (16.8–37.5)* HC=25.1 (15.7–37.6)*	AS=1.6 HC=0.9	6 (0–45)*
Eder L <i>et al.</i> 2014 ²⁰	PsA=53.2 (12.5) PsO=51.2 (14) HC=42.4 (12.7)	PsA=30.9 (6.6) PsO=27.3 (4.3) HC=25.9 (5.3)	PsA=1.7 PsO=1 HC=0.4	14.2 (12.1)

AS: ankylosing spondylitis; BMI: body mass index; HC: healthy control; PsO: psoriasis (only); PsA: psoriatic arthritis. Numbers are given as mean (SD) or median (range)*

Supplementary Table II. The quality assessment of all selected articles according to NIH.

	Kim SK 2017 ¹⁶			Kim K-J 2012 ¹⁸			Eder L 2014 ²⁰			Maas F 2015 ¹⁷			Aydin SZ 2016 ¹⁹		
	Yes	No	CD, NA, NR	Yes	No	CD, NA, NR	Yes	No	CD, NA, NR	Yes	No	CD, NA, NR	Yes	No	CD, NA, NR
1. Research question	+			+			+			+			+		
2. Description of the study population	+			+			+			+			+		
3. The eligible participations of study population	+			+			+			+			+		
4. Eligibility criteria	+			+			+			+				+	
5. Sample size justification		+			+			+			+			+	
6. Exposure assessed prior to outcome measurement	+			+			+		+				+		
7. Sufficient timeframe to see an effect		+			+			+		+				+	
8. Different levels of the exposure of interest	+			+			+			+			+		
9. Exposure measures and assessment	+			+			+			+			+		
10. Repeated exposure assessment		+			+			+		+				+	
11. Outcome measures	+			+			+			+			+		
12. Blinding of outcome assessors	+				+		+			+			+		
13. Follow-up rate			+			+			+	+					+
14. Statistical analyses	+			+			+			+			+		
Total Quality Rating	GOOD			GOOD			GOOD			GOOD			GOOD		

CD: cannot determine; NA: not applicable; NR: not reported