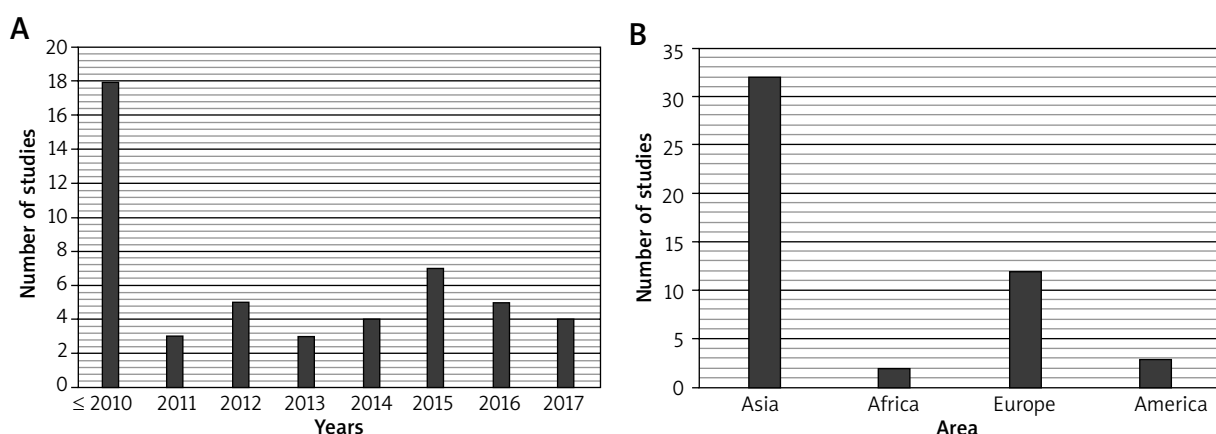


Supplementary Table S1. Baseline characteristics of the studies included in meta-analysis ($n = 49$)

The first author, year	Country	Number of patients	Number of controls	Mean age of patients [years]	Mean age of controls [years]	% of male patients	% of male controls	Mean BMI of patients [kg/m ²]	Mean BMI of controls [kg/m ²]	Mean PASI score of patients
Aguilar Martinez, 1989 [10]	Spain	61	34	47.8	44	54.1	44.1	–	–	–
Seckin, 1994 [16]	Turkey	32	13	35.53	35.69	100	100	Matched	Matched	Range (1–64.2)
Seishima, 1994 [50]	Japan	38	40	46.2	45.7	100	100	–	–	> 30
Rocha-Pereira, 2001 [57]	Portugal	48	40	47	47	62	55	Matched	Matched	Mild and severe
Takeda, 2001 [51]	Japan	27	15	43.6	35.2	74.1	66.7	–	–	11.2
Pietrzak, 2002 [43]	Poland	41	57	27.43	26.32	63.4	50.87	23.99	26.7	27.6
Uyanik, 2002 [17]	Turkey	72	30	38.4	Matched	40.3	–	≤ 28	≤ 28	–
Piskin, 2003 [18]	Turkey	100	100	45.1	44	48	54	–	–	–
Vanizor Kural, 2003 [19]	Turkey	30	30	34.2	36.7	43.3	50	–	–	5.52
Pietrzak, 2006 [44]	Poland	22	12	32.27	28.58	100	100	23.66	24.1	27.02
Farshchian, 2007 [29]	Iran	30	30	34.6	34.63	60	60	22.96	23.23	9.99
Akhvani, 2007 [30]	Iran	50	50	41.82	43.34	78	78	25.56	25.20	–
Bajaj, 2009 [36]	India	79	79	37	37	55.7	55.7	≤ 30	≤ 30	–
Pietrzak, 2009 [45]	Poland	34	26	37.03	34.11	100	100	25.52	25.04	27.02
Toker, 2009 [20]	Turkey	30	23	30.4	29.5	40	47.9	23.27	24.12	–
Aldhalimi, 2010 [58]	Iraq	50	50	37.6	37.4	78	78	Matched (≤ 30)	Matched (≤ 30)	19.6
Azizzadeh, 2010 [31]	Iran	52	50	35.86	33	55.8	46	Matched (≤ 30)	Matched (≤ 30)	< 5 (13.5%) 5–15 (65.4%) > 15 (21.2%)
Swelam, 2010 [52]	Egypt	30	10	35.3	37.7	36.7	20	–	–	Mild to moderate
Malekzad, 2011 [32]	Iran	30	30	37.27	36.1	43.3	46.67	31.37	30.30	–
Pereira, 2011 [37]	India	77	92	46.51	43.24	80.5	68.5	–	–	4.61
Usta, 2011 [21]	Turkey	52	25	37.44	35	44.2	40	28.65	24.3	3.65
Asefi, 2012 [33]	Iran	100	100	35.3	35.7	43	44	≤ 30	≤ 30	16.7
Ferretti, 2012 [55]	Italy	23	25	47.5	40.6	43.5	48	–	–	< 20 (52.2%)
Mehta, 2012 [47]	USA	122	134	44.5	49	60	53	29.5	26.9	3.83
Romani, 2012 [2]	Spain	50	40	46.4	46.1	62	77.5	27.6	27.5	15.6
Cao, 2013 [48]	USA	100	53	46.3	45.1	52	49.1	30.1	29.1	8.0
Emre, 2013 [22]	Turkey	28	46	39.89	35.11	42.9	43.5	–	–	11.09
Nemati, 2013 [11]	Iran	90	90	34.7	33	Matched	Matched	25.5	25.3	< 50
Taheri Sarvtin, 2014 [34]	Iran	50	50	43.84	44.9	46	46	24.4	23.88	< 10 (74%) 10–20 (14%) > 20 (12%)
Antonucci, 2014 [54]	Italy	40	40	48.08	49.48	65	65	23.98	24.45	16.1
El-Hadidi, 2014 [53]	Egypt	30	30	48.4	48.07	53.3	53.3	31.72	25.2	15.03
Holzer, 2014 [56]	Austria	15	15	49.7	43	80	67	–	–	16.6

The first author, year	Country	Number of patients	Number of controls	Mean age of patients [years]	Mean age of controls [years]	% of male patients	% of male controls	Mean BMI of patients [kg/m ²]	Mean BMI of controls [kg/m ²]	Mean PASI score of patients
Nakhwa, 2014 [38]	India	100	73	40.72	41.67	75	75.3	–	–	6.9 (median)
Bilgiç, 2015 [23]	Turkey	40	40	26.03	23.4	100	100	Matched	Matched	5.32
Farshchian, 2015 [35]	Iran	55	55	47.3	45.16	65.5	64	26.36	24.60	–
Irimie, 2015 [1]	Romania	142	167	49.51	47.87	52.8	52.7	≥ 30 (28.87%)	≥ 30 (23.35%)	8.63
Naik, 2015 [49]	USA	60	20	46.75	40.37	47	65	29.4	27.4	5.48
Pang, 2015 [59]	China	86	84	38.53	41.33	74.42	83.33	24.82	23.87	< 12 (12.8%) ≥ 12 and < 30 (62.8%) ≥ 30 (24.4%)
Prathibha, 2015 [39]	India	30	30	Matched	Matched	66.7	53.3	–	–	–
Sunitha, 2015 [40]	India	45	45	44.87	42.56	80	80	22.88	22.96	13.97
Alatas, 2017 [24]	Turkey	30	30	39.67	39.76	50	50	27.73	26.17	4.71
Coban, 2016 [25]	Turkey	35	50	44.43	40.48	71.4	64	27.18	26.88	5.85
Okan, 2016 [26]	Turkey	45	45	33.3	36.3	68.9	64.4	26.1	26.9	18.5
Praveenkumar, 2016 [41]	India	30	30	42.07	45.77	46.7	50	24.23	24.56	–
Uczniak, 2016 [46]	Poland	246	75	46	46	56.1	46.7	–	–	Moderate to severe
Girisha, 2017 [42]	India	156	156	45.5	45.4	75.6	75.6	24	25.2	5.77
Myśliwiec, 2017 [5]	Poland	85	32	49.7	43.8	67	65	27.55	23.97	11.4
Sereflican, 2017 [27]	Turkey	32	22	32.25	26	37.5	13.6	25.25	21.25	4.4
Solak, 2017 [28]	Turkey	70	60	45.0	43.4	47.1	48.3	28.1	25.8	6.83
Total	–	2600	2358	40.89	39.64	68.93	63.81	–	–	–

BMI – body mass index, PASI – psoriasis area and severity index.

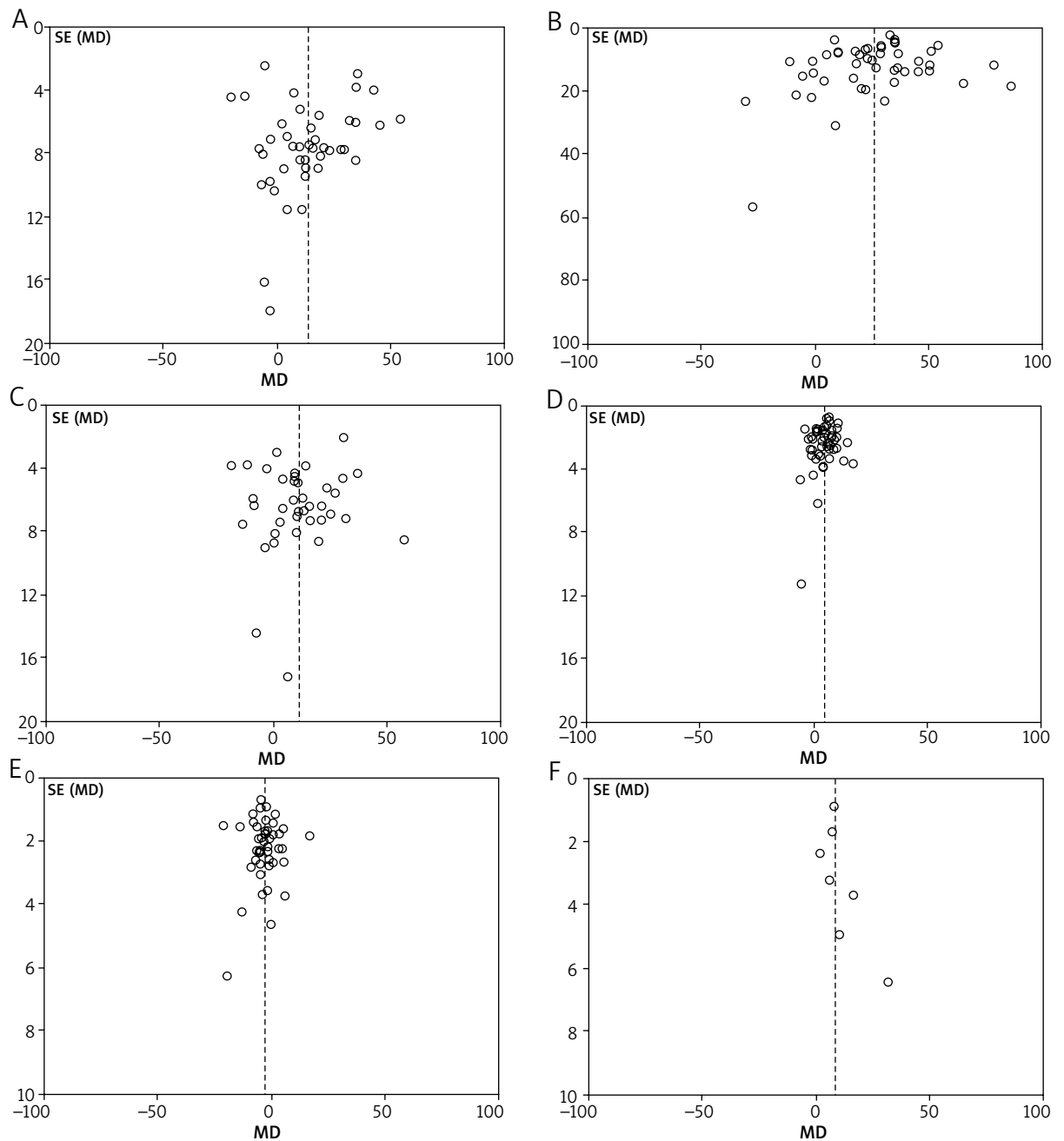


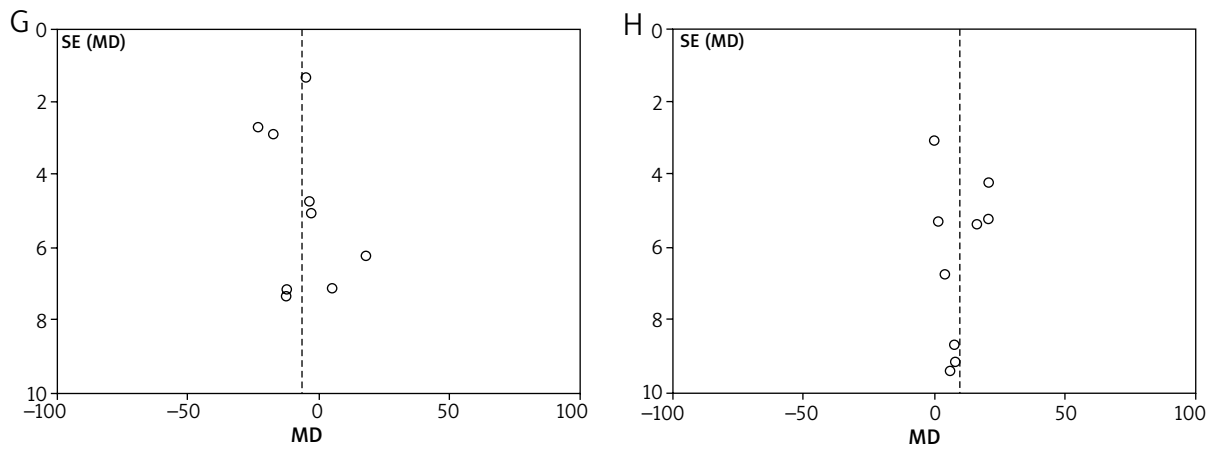
Supplementary Figure S1. **A** – Number of studies published per year of publication. **B** – Number of studies published per geographic area

Supplementary Table S2. Quality ratings for the studies included on the basis of Newcastle-Ottawa quality assessment scale ($n = 49$)

The first author, year	Selection (score)	Comparability (score)	Exposure/outcome (score)	Total score
Aguilar Martinez, 1989 [10]	1	0	2	3
Seckin, 1994 [16]	3	2	2	7
Seishima, 1994 [50]	2	1	2	5
Rocha-Pereira, 2001 [57]	2	1	2	5
Takeda, 2001 [51]	2	1	2	5
Pietrzak, 2002 [43]	2	2	2	6
Uyanik, 2002 [17]	2	0	2	4
Piskin, 2003 [18]	2	1	2	5
Vanizor Kural, 2003 [19]	4	1	2	7
Pietrzak, 2006 [44]	2	2	2	6
Farshchian, 2007 [29]	3	2	2	7
Akhyani, 2007 [30]	3	1	2	6
Bajaj, 2009 [36]	3	1	2	6
Pietrzak, 2009 [45]	2	1	2	5
Toker, 2009 [20]	2	2	2	6
Aldhalimi, 2010 [58]	3	2	2	7
Azizzadeh, 2010 [31]	4	1	2	7
Swelam, 2010 [52]	2	0	2	4
Malekzad, 2011 [32]	4	1	2	7
Pereira, 2011 [37]	3	1	2	6
Usta, 2011 [21]	3	1	2	6
Asefi, 2012 [33]	3	1	2	6
Ferretti, 2012 [55]	3	1	2	6
Mehta, 2012 [47]	4	1	2	7
Romani, 2012 [2]	2	2	2	6
Cao, 2013 [48]	3	1	2	6
Emre, 2013 [22]	3	1	2	6
Nemati, 2013 [11]	3	1	2	6
Taheri Sarvtin, 2014 [34]	2	2	2	6
Antonucci, 2014 [54]	4	2	2	8
El-Hadidi, 2014 [53]	3	2	2	7
Holzer, 2014 [56]	1	1	2	4
Nakhwa, 2014 [38]	2	2	2	6
Bilgiç, 2015 [23]	2	1	2	5
Farshchian, 2015 [35]	4	1	2	7
Irimie, 2015 [1]	3	2	2	7
Naik, 2015 [49]	3	2	2	7
Pang, 2015 [59]	3	1	2	6
Prathibha, 2015 [39]	3	1	2	6
Sunitha, 2015 [40]	3	2	2	7
Alatas, 2017 [24]	2	2	2	6
Coban, 2016 [25]	3	2	2	7

The first author, year	Selection (score)	Comparability (score)	Exposure/outcome (score)	Total score
Okan, 2016 [26]	3	2	2	7
Praveenkumar, 2016 [41]	3	2	2	7
Uczniak, 2016 [46]	2	2	2	6
Girisha, 2017 [42]	3	2	2	7
Myśliwiec, 2017 [5]	3	2	2	7
Sereflican, 2017 [27]	3	2	2	7
Solak, 2017 [28]	3	2	2	7
Mean score				6.1





Supplementary Figure S2. Funnel plot of random-effects analysis of total cholesterol (A), triglyceride (B), low-density lipoprotein (C), very low-density lipoprotein (D), high-density lipoprotein (E), lipoprotein (a) (F), apolipoprotein A1 (G), and apolipoprotein B (H) levels in psoriatic patients compared with healthy controls
