

Fig. S1. Correlation analysis between 25-hydroxyvitamin D and components of the metabolic syndrome. 25-hydroxyvitamin D is inversely related to waist circumference, glycaemia, diastolic blood pressures (DBP), systolic blood pressures (SBP) and triglyceridaemia.

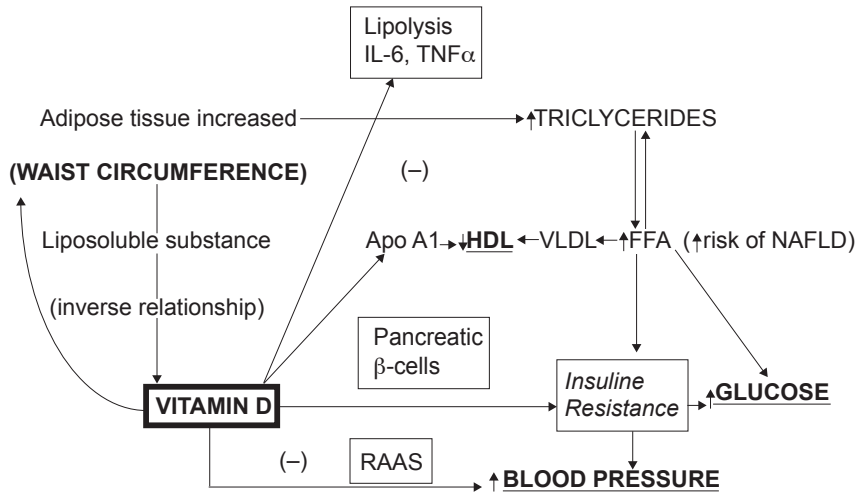


Fig. S2. Pathogenic mechanisms that may explain the association between metabolic syndrome (MeS) and vitamin D deficiency in psoriatic patients. RAAS: "renin-angiotensin-aldosterone system". MeS criteria in bold: waist circumference, high blood pressure, triglycerides, glucose, and high density lipoprotein (HDL). Inverse relationship between vitamin D and waist circumference (adipose tissue): vitamin D influences the inhibition of pre-adipocyte differentiation. Waist circumference is an essential component of MeS and is correlated with a higher level of triglycerides, free fatty acids and insulin resistance. Vitamin D influences the lipolysis of triglycerides by inhibiting the secretion of pro-inflammatory cytokines (interleukin (IL)-6 and tumour necrosis factor alpha (TNF- α)). Moreover, various authors have reported that vitamin D exerts an influence on pancreatic β -cells and the renin-angiotensin-aldosterone system. Finally, a positive relationship has been documented between vitamin D and high-density lipoprotein cholesterol (HDL-C).

Table SI. Mean and standard deviation (SD) of different variables according to the presence of metabolic syndrome (MeS) in psoriasis and control groups

Variables	Psoriasis			Control		
	No MeS n=32 (69.6%)	MeS n=14 (30.4%)	p-value	No MeS n=38 (82.6%)	MeS n=8 (17.4%)	p-value
Age, years, mean ± SD	45.12 ± 10.45	46.83 ± 8.71	0.460	44.64 ± 10.21	52.86 ± 5.73	0.026
Sex, male, %	58.8	50.0	0.738	53.9	71.4	0.446
Time with psoriasis, mean ± SD	18.80 ± 11.82	17.92 ± 12.30	0.764	–	–	–
Psoriasis Area and Severity Index, mean ± SD	3.61 ± 3.83	6.18 ± 5.38	0.080	–	–	–
Body surface area, %, mean ± SD	4.11 ± 5.95	7.91 ± 9.34	0.121	–	–	–
Family history of psoriasis, n (%)	15/34 (44.1)	5/12 (41.7)	0.883	–	–	–
Body mass index, years, mean ± SD	27.46 ± 5.37	31.42 ± 4.68	0.005	25.89 ± 3.18	32.09 ± 2.46	0.000
Smoking, pack-years, mean ± SD	11.42 ± 11.37	13.50 ± 14.04	0.723	9.12 ± 12.56	10.32 ± 11.79	0.835
Alcoholism, g/week, mean ± SD	77.88 ± 102.92	123.67 ± 203.81	0.832	63.10 ± 70.57	118.57 ± 172.26	0.631
Physical activity, level 1, %	32.4	50.0	0.314	41.0	75.0	1.000
Vitamin D intake, IU, mean ± SD	194.63 ± 140.99	171.99 ± 128.64	0.679	175.56 ± 90.62	158.23 ± 161.26	0.202
Sun exposure, h/week, mean ± SD	35.75 ± 21.41	28.17 ± 21.02	0.271	25.53 ± 15.71	28.52 ± 21.24	0.842
25-hydroxyvitamin, ng/ml, mean ± SD	32.80 ± 8.85	24.05 ± 7.50	0.007	37.65 ± 9.84	41.99 ± 7.41	0.112