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**Table SI. Detection limits of the mediators (Unit: pg/ml)**

Mediator	Detection limit	Mediator	Detection limit	Mediator	Detection limit
IL-1 $\alpha$	13.69	IL-12	4.23	G-CSF	15.34
IL-1 $\beta$	1.34	IL-13	3.93	GM-CSF	1.37
IL-2	3.59	IL-15	1.19	CXCL10	8.38
IL-4	1.35	IL-17A	1.21	MCP-1	8.06
IL-6	3.62	IL-23	8.3	hs-CRP	22.31
IL-8	1.33	IL-31	13.08	TGF- $\beta$	13.43
IL-9	33.64	IFN- $\gamma$	13.91	TNF- $\alpha$	1.17

IL = interleukin; IFN- $\gamma$  = interferon- $\gamma$ ; G-CSF = granulocyte colony-stimulating factor; GM-CSF = granulocyte-macrophage colony-stimulating factor; CXCL10 = C-X-C motif chemokine ligand 10; MCP-1 = monocyte chemoattractant protein-1; hs-CRP = high-sensitivity C-reactive protein; TGF- $\beta$  = transforming growth factor beta; TNF- $\alpha$  = tumour necrosis factor- $\alpha$ .

**Table SII. The cytokines and chemokines those were not significantly different between the two groups**

Variables	Total patients n=87		Diabetic patients with pruritus n=59		Diabetic patients without pruritus n=28		p-value
	median (IQR)	mean (SD)	median (IQR)	mean (SD)	median (IQR)	mean (SD)	
Cytokines and chemokines (pg/ml)							
Interleukin-1 $\alpha$	0 (0–0)	2.836 (25.673)	0 (0–0)	4.181 (31.170)	0 (0–0)	0 (0)	0.227
Interleukin-1 $\beta$	0.26 (0–0.95)	2.081 (13.280)	0 (0–1.16)	2.922 (16.100)	0.26 (0.15–0.37)	0.309 (0.264)	0.567
Interleukin-2	0 (0–0)	21.312 (99.785)	0 (0–0)	28.469 (118.726)	0 (0–0)	6.231 (36.970)	0.536
Interleukin-6	0 (0–0)	7.422 (56.603)	0 (0–0)	10.725 (68.654)	0 (0–0)	0.461 (2.442)	0.396
Interleukin-8	2.22 (1.10–3.03)	2.696 (2.997)	2.51 (0–3.155)	2.892 (3.550)	2.103 (1.488–2.874)	2.282 (1.127)	0.927
Interleukin-9	0 (0–0)	53.427 (492.069)	0 (0–0)	78.782 (597.488)	0 (0–0)	0 (0)	0.227
Interleukin-12	0 (0–0)	5.377 (49.044)	0 (0–0)	7.929 (59.547)	0 (0–0)	0 (0)	0.082
Interleukin-15	0 (0–0)	1.734 (7.067)	0 (0–0)	2.376 (8.452)	0 (0–0)	0.379 (1.684)	0.773
Interleukin-17A	0 (0–0)	0 (0)	0 (0–0)	0 (0)	0 (0–0)	0 (0)	1.000
Interleukin-23	0 (0–0)	0 (0)	0 (0–0)	0.072 (0.556)	0 (0–0)	0 (0)	0.491
Interleukin-31	0 (0–0)	7.627 (20.807)	0 (0–0)	9.754 (31.928)	0 (0–0)	3.145 (15.568)	0.793
Interferon- $\gamma$	0 (0–0)	11.272 (61.431)	0 (0–0)	16.053 (74.256)	0 (0–0)	1.198 (4.459)	0.983
G-CSF	0 (0–0)	16.876 (85.793)	0 (0–0)	24.886 (103.493)	0 (0–0)	0 (0)	0.059
MCP-1	83.075 (59.625–112.030)	106.686 (146.311)	86.525 (63.85–114.215)	118.484 (174.708)	77.908 (49.348–110.290)	81.824 (40.895)	0.182
hs-CRP	36741.825 (33156.340–39960.935)	37444.051 (10596.736)	36183.98 (32362.645–40124.055)	37307.996 (11515.546)	36861.310 (34652.674–39318.443)	37730.740 (8525.268)	0.679
TGF- $\beta$	12985.27 (10415.495–17201.910)	14024.794 (5684.354)	12302.595 (10312.07–15700.57)	13507.627 (5813.332)	14214.440 (11844.456–18440.285)	15114.540 (5339.200)	0.114
TNF- $\alpha$	0 (0–0)	0.332 (2.776)	0 (0–0)	0.489 (3.369)	0 (0–0)	0 (0)	0.059

IQR = interquartile range; SD = standard deviation; IFN- $\gamma$  = interferon- $\gamma$ ; G-CSF = granulocyte colony-stimulating factor; MCP-1 = monocyte chemoattractant protein-1; hs-CRP = high-sensitivity C-reactive protein; TGF- $\beta$  = transforming growth factor beta; TNF- $\alpha$  = tumour necrosis factor- $\alpha$ .