

## Supplementary material

---

*Kiluk M, Lewkowicz J, Kowalska I, et al. Alterations of the kynurenine pathway in patients with type 1 diabetes are associated with metabolic control of diabetes. Pol Arch Intern Med. 2023; 133: 16581. doi:10.20452/pamw.16581*

Please note that the journal is not responsible for the scientific accuracy or functionality of any supplementary material submitted by the authors. Any queries (except missing content) should be directed to the corresponding author of the article.

**Table S1** Baseline characteristics of patients without diabetes (control group) and subjects with type 1 diabetes.

	Control group (n=43)	T1D (n=50)	<i>P</i>
Age, years	40 (28-44)	34.5 (30-51)	0.05
Gender, female/male	22/21	24/26	0.76
BMI, kg/m <sup>2</sup>	25.5 (23.21-27.4)	24.05 (21.5-26.1)	0.05
WHR	0.876 (0.85-0.91)	0.853 (0.796-0.904)	0.27
Degree of obesity, % (current weight/ standard weight) x 100	118 (107.0-129.0)	111.5 (97.0-125.0)	0.09
Visceral fat level	11 (7-13)	8.5 (6.0-11.5)	0.12
Body fat mass, kg	22.25 (17.3-29.0)	18.7 (13.2-26.3)	0.08
HR, beats/minute	64.5 (58-75)	75 (69-86)	0.004
Diabetes duration, years	-	9 (2-18)	
Daily insulin dose, units/24h	-	37.25 (25-46.3)	

Daily insulin dose per kilogram, units/kg/24h	-	0.485 (0.362-0.625)	
Glucagon test (n=18)			
C-peptide at 0 minutes, ng/ml	-	0.58 (0.14-0.99)	
C-peptide at 6 minutes, ng/ml	-	0.83 (0.32-1.74)	
A complication of diabetes			
n,%			
Retinopathy	-	9 (18)	
Nephropathy	-	4 (8)	
Neuropathy	-	9 (18)	
CRP, mg/L	0.5 (0.819-1.52)	1 (0.5-2.2)	0.21
Fasting glucose, mg/dL	88 (83-91)	142 (114.5-200.5)	<0.001
Total cholesterol, mg/dL	183.5 (171-211)	189 (155-211)	0.71
TG, mg/dL	88.5 (69-119)	78 (52.5-109.0)	0.34
HDL, mg/dL	53 (44.0-69.0)	60 (47.5-71.5)	0.29
GFR, ml/min	97 (86-105)	115 (99-131)	0.02

Abbreviations: BMI, body mass index; CRP, C-reactive protein; GFR, glomerular filtration rate; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein, HR, heart rate; T1D, type 1 diabetes; TG, triglycerides; WHR, waist-hip ratio. Values are expressed as median (interquartile range) and percent, *P* values were derived from the Mann-Whitney U test or Chi<sup>2</sup> test.

**Table S2** The results of multivariable linear regression analysis in the type 1 diabetes group.

Independent variables	KYN			TRP		
	B	<i>P</i>	95% CI	B	<i>P</i>	95% CI
BMI, kg/m <sup>2</sup>	-0.003	0.91	-0.062;0.556	0.937	0.04	0.038;1.836
Age, years	-0.014	0.15	-0.341; 0.006	0.051	0.74	-0.252;0.354
GFR, ml/min	0.007	0.08	-0.001;0.015	0.059	0.33	-0.062; 0.18
HDL, mg/dL	-0.014	0.02	-0.027;-0.002	-0.234	0.02	-0.423;-0.046
HbA1c, %	0.178	0.02	0.03; 0.326	0.853	0.45	-1.409; 3.116
Diabetes duration, years	0.043	0.003	0.015; 0.71	0.214	0.31	-0.21; 0.637
Adjusted R <sup>2</sup>	0.35			0.22		

Kynurenine and tryptophan were used as a dependent variable.

Abbreviations: BMI, body mass index; CI, confidence interval; GFR, glomerular filtration rate; HbA1c, glycated hemoglobin; HDL, high-density lipoprotein; KYN, kynurenine; T1D, type 1 diabetes; TRP, tryptophan.