

Appendix 1 The reference ranges of tests

Tests	Reference range
BMI (kg/m ²)	18.50~23.90
Waist circumference (cm)	< 85 for male, < 80 for female
WHR	≥0.90 for male, ≥0.85 for female
AST (U/L)	15.00~40.00
ALT (U/L)	9.00~50.00
ALP (U/L)	45.00~125.00
GGT (U/L)	0.00~60.00
Fasting insulin (pmol/L)	17.80~173.00
Fasting blood glucose (mmol/L)	3.89~6.11
Total bile acid (μmol/L)	0.00~9.70
TG (mmol/L)	0.34~1.71
TC (mmol/L)	2.33~5.69
HDL-C (mmol/L)	1.16~1.42
LDL-C (mmol/L)	2.64~3.10

BMI, Body mass index; WHR, Waist-to-hip ratio; AST, Aspartate transaminase; ALT, Alanine aminotransferase; ALP, Alkaline phosphatase; GGT, γ -glutamyl transferase; TG, Triglyceride; TC, Total cholesterol; HDL-C, High density lipoprotein cholesterol; LDL-C, Low density lipoprotein cholesterol

Appendix 2. Primer for qRT-PCR

Gene	Forward primer 5' to 3'	Reverse primer 5' to 3'	Amplicon size
<i>GAPDH</i>	GGAGCGAGATCCCTCCAAAAT	GGCTGTTGTCATACTTCTCATGG	197
<i>NLRP3</i>	GATCTTCGCTGCGATCAACAG	CGTGCATTATCTGAACCCAC	81
<i>CASP1</i>	TTTCCGCAAGGTTGATTTTCA	GGCATCTGCGCTCTACCATC	54
<i>GSDMD</i>	GTGTGTCAACCTGTCTATCAAGG	CATGGCATCGTAGAAGTGGAAG	94
<i>IL1B</i>	ATGATGGCTTATTACAGTGGCAA	GTCGGAGATTCGTAGCTGGA	132
<i>IL18</i>	TCTTCATTGACCAAGGAAATCGG	TCCGGGGTGCATTATCTCTAC	75
<i>FOXP3</i>	GTGGCCCGGATGTGAGAAG	GGAGCCCTTGTCGGATGATG	238
<i>IL17A</i>	TCCCACGAAATCCAGGATGC	GGATGTTGAGTTGACCATCAC	75

Appendix 3. Baseline characteristics of subjects

	Silymarin + TCM (n=32)	Silymarin (n=31)	Placebo (n=31)	Test statistics	<i>P</i> value
Gender				2.93	0.23 ^a
Male	21	24	26		
Female	11	7	5		
Age (year)	45.00 (34.00, 51.50)	44.00 (40.00, 50.00)	43.00 (36.00, 51.00)	0.20	0.91 ^c
BMI (kg/m ²)	26.65 (25.40, 29.07)	25.80 (24.50, 29.10)	27.30 (24.70, 30.50)	0.89	0.64 ^c
Systolic pressure (mmHg)	122.00±12.59	123.81±10.82	120.87±12.88	0.46	0.63 ^b
Diastolic pressure (mmHg)	88.50 (77.00, 93.00)	89.00 (80.00, 98.00)	86.00 (77.00, 95.00)	1.28	0.53 ^c
Waist circumference (cm)	96.50 (91.25, 100.00)	93.00 (90.00, 99.00)	98.00 (93.00, 104.00)	1.57	0.46 ^c
Hip circumference (cm)	103.00 (97.25, 105.75)	100.00 (97.00, 105.00)	103.00 (96.00, 106.00)	0.24	0.89 ^c
WHR	0.95 (0.89, 0.99)	0.94 (0.92, 0.96)	0.96 (0.93, 1.00)	1.27	0.53 ^c
Creatinine (μmol/L)	75.19±15.62	81.65±13.99	76.46±14.76	1.67	0.19 ^b
Urea nitrogen (mmol/L)	4.00 (3.42, 5.27)	4.50 (4.00, 5.30)	4.70 (4.10, 5.70)	4.85	0.09 ^c
Uric acid (μmol/L)	425.94±116.17	428.13±91.70	426.45±85.59	0.00	1.00 ^b
AST (U/L)	23.40 (19.82, 29.75)	23.40 (17.70, 30.70)	23.40 (18.10, 28.20)	0.18	0.91 ^c

ALT (U/L)	31.85 (26.70, 44.75)	29.80 (17.10, 58.10)	32.20 (22.60, 44.50)	0.09	0.96 ^c
ALP (U/L)	74.50 (59.50, 85.75)	77.00 (60.00, 88.00)	78.00 (68.00, 90.00)	1.63	0.44 ^c
GGT (U/L)	41.50 (25.50, 58.25)	41.00 (22.00, 58.00)	39.00 (18.00, 60.00)	0.11	0.95 ^c
AST/ALT	0.69 (0.58, 0.87)	0.74 (0.53, 1.08)	0.74 (0.61, 0.93)	0.81	0.67 ^c
Fasting insulin (pmol/L)	109.70 (82.41, 153.92)	100.90 (46.76, 141.30)	95.03 (63.80, 125.40)	2.56	0.28 ^c
Fasting blood glucose (mmol/L)	5.31 (5.09, 6.12)	5.40 (5.10, 5.72)	5.33 (4.94, 5.65)	0.63	0.73 ^c
HOMA2 IR	2.14 (1.62, 2.87)	1.96 (0.89, 2.55)	1.77 (1.23, 2.39)	3.13	0.21 ^c
Total bile acid (μmol/L)	3.50 (2.17, 6.32)	2.60 (1.60, 4.10)	3.30 (1.60, 4.90)	3.31	0.19 ^c
TG (mmol/L)	2.48 (1.38, 4.18)	2.12 (1.16, 3.91)	1.76 (1.37, 3.28)	1.22	0.54 ^c
TC (mmol/L)	5.08±0.97	5.23±0.72	5.09±1.05	0.25	0.78 ^b
HDL-C (mmol/L)	1.08 (0.94, 1.26)	1.23 (0.96, 1.38)	1.18 (0.96, 1.33)	2.12	0.35 ^c
LDL-C (mmol/L)	3.18±0.77	3.26±0.79	3.10±0.95	0.29	0.75 ^b
IL-10 (pg/mL)	4.88 (3.79, 5.65)	4.36 (3.63, 6.12)	4.64 (3.30, 5.63)	0.26	0.88 ^c
IL-18 (pg/mL)	242.39 (153.13, 384.65)	250.11 (100.29, 336.81)	238.21 (56.69, 251.43)	4.56	0.10 ^c

Results are expressed as means ± SD or median (IQR). ^a Chi-square test, ^b One-way ANOVA, ^c Kruskal-Wallis test. TCM, Traditional Chinese medicine; BMI, Body mass index; WHR, Waist-to-hip ratio; AST, Aspartate transaminase; ALT, Alanine aminotransferase; ALP, Alkaline phosphatase; GGT, γ-glutamyl transferase; HOMA2 IR, Homeostasis model assessment 2 of insulin resistance; TG, Triglyceride; TC, Total cholesterol; HDL-C, High density lipoprotein cholesterol; LDL-C,

Low density lipoprotein cholesterol; IL, Interleukin