

Table S1. The concentration of metals (Cu, Zn), MT, Cp and markers of inflammation and oxidative stress in the group AP patients in terms of etiology of disease

Parameters in erythrocyte lysate	Biliary	Alcohol	Alcohol and hyperlipidaemia	Hyperlipidaemia	Other
MT [ng/g Hb]	28.3 ± 4.7 (23.7; 30.2; 31.8)	27.5 ± 4.7 (23.7; 26.9; 29.6)	28.7 ± 4.1 (26.4; 28.6; 30.8)	27.3 ± 7.6 (21.1; 25.7; 33.6)	26.0 ± 6.0 (23.3; 26.9; 29.7)
SODs [U/g Hb]	421.4 ± 99.5 (340.2; 389.6; 534.6)	459.3 ± 82.3 (392.5; 440.2; 556.2)	392.1 ± 72.2 (332.6; 371.2; 472.5)	436.5 ± 103.6 (357.1; 398.5; 553.7)	398.1 ± 66.3 (8.0; 9.4; 10.7)
Parameters in plasma	Biliary	Alcohol	Alcohol and hyperlipidaemia	Hyperlipidaemia	Other
MT [ng/ml]	1.9 ± 0.2 (1.8; 1.9; 2.2)	1.6 ± 0.2 (1.4; 1.5; 1.8)	1.7 ± 0.2 (1.5; 1.7; 1.9)	1.6 ± 0.2 (1.5; 1.5; 1.5)	1.8 ± 0.2 (1.6; 1.7; 1.8)
Cu [µg/l]	1027.3 ± 90.0 (971.7; 997.3; 1082.8)	1206.3 ± 135.4 (1067.2; 1240.1; 1286.3)	1214.8 ± 104.3 (1103.3; 1231.0; 1310.1)	876.8 ± 10.6 (869.3; 876.8; 884.3)	1078.6 ± 106.6 (992.5; 1073.6; 1164.1)
Zn [µg/l]	720.8 ± 238.4 (517.2; 684.7; 884.4)	542.6 ± 182.3 (363.6; 506.2; 733.8)	494.8 ± 102.7 (408.2; 483.6; 581.4)	772.0 ± 75.9 (718.3; 772.0; 825.7)	646.8 ± 128.5 (564.8; 641.5; 728.8)
Cu/Zn ratio	1.6 ± 0.5 (1.1; 1.6; 1.8)	1.9 ± 0.5 (1.4; 1.9; 2.3)	1.9 ± 0.5 (1.7; 2.1; 2.2)	1.6 ± 0.4 (1.3; 1.7; 1.8)	1.8 ± 0.3 (1.5; 1.7; 2.1)
MDA[nmol/µL]	2.4 ± 1.1 (1.9; 2.0; 2.4)	2.5 ± 0.7 (2.0; 2.3; 3.1)	2.5 ± 0.6 (2.2; 2.6; 2.9)	2.1 ± 0.4 (2.0; 2.3; 2.4)	2.2 ± 0.5 (1.8; 2.2; 2.5)
SODs [U/ml]	9.1 ± 2.7 (7.8; 8.8; 10.2)	10.2 ± 3.8 (7.2; 9.7; 11.5)	9.0 ± 1.1 (8.2; 8.9; 9.5)	9.4 ± 3.0 (6.9; 8.4; 12.0)	9.3 ± 1.5 (8.0; 9.4; 10.7)
TAC [µM CRE]	1125.5 ± 329.2 (870.2; 1077.6; 1288.4)	961.5 ± 329.1 (659.8; 800.7; 1308.6)	773.0 ± 475.6 (685.6; 734.1; 769.8)	808.7 ± 684.5 (371.7; 692.9; 1245.6)	863.3 ± 241.5 (709.0; 783.5; 988.4)
Cp [mg/dl]	19.5 ± 5.6 (15.3; 18.7; 25.1)	25.1 ± 8.2 (19.0; 26.3; 31.2)	25.0 ± 7.5 (20.2; 23.5; 26.0)	21.9 ± 11.6 (12.2; 27.1; 29.8)	19.5 ± 4.2 (16.9; 18.3; 22.2)
hs-CRP [mg/dl]	116.6 ± 12.8 (105.9; 114.6; 127.2)	151.6 ± 48.4 (110.8; 157.7; 192.3)	139.0 ± 26.8 (123.4; 130.2; 154.5)	134.7 ± 0.0 (134.7; 134.7; 134.7)	97.3 ± 51.5 (42.6; 132.6; 133.6)
IL-6 [pg/ml]	83.7 ± 9.0 (74.6; 83.8; 92.7)	53.5 ± 53.5 (53.5; 53.5; 53.5)	71.3 ± 43.5 (40.5; 71.3; 102.1)	55.4 ± 35.6 (41.2; 56.3; 87.6)	38.9 ± 9.9 (31.9; 38.9; 45.9)

The data were presented as mean ± standard deviation and upper quartile, median, lower quartile.

Table S2. The concentration of metals (Cu, Zn), MT, Cp and markers of inflammation and oxidative stress in the group of healthy subjects and AP patients in terms of sex.

Parameters in erythrocyte lysate	Healthy subjects			Patients with AP		
	Women (n=26)	Men (n=25)	p	Women (n=13)	Men (n=27)	p
MT [ng/g Hb]	11.5 ± 3.2 (9.5; 10.3 ; 11.9)	10.2 ± 2.3 (8.6; 9.5 ; 10.7)	0.1445	28.2 ± 5.2 * (25.6; 27.9 ; 30.7)	28.9 ± 6.6 ** (24.9; 28.0 ; 31.4)	0.1837
SODs [U/g Hb]	158.7 ± 54.3 (114.3; 144.2 ; 190.9)	140.5 ± 57.0 (96.0; 133.1 ; 165.3)	0.2965	422.2 ± 92.3 * (332.6; 431.6 ; 479.0)	417.9 ± 74.0 ** (374.2; 399.3 ; 448.1)	0.8877
Parameters in plasma	Women (n=26)	Men (n=25)	p	Women (n=26)	Men (n=25)	p
MT [ng/ml]	1.8 ± 0.3 (1.7; 1.7 ; 1.8)	1.7 ± 0.1 (1.6; 1.7 ; 1.7)	0.1134	1.6 ± 0.2 * (1.5; 1.6 ; 1.9)	1.7 ± 0.2 (1.5; 1.7 ; 1.8)	0.3395
Cu [µg/l]	1056.8 ± 126.1 (977.7; 1038.8 ; 1110.7)	1001.2 ± 179.0 (838.4; 991.9 ; 1089.5)	0.2260	1053.6 ± 187.7 (952.3; 1003.9 ; 1073.6)	1149.6 ± 137.0 ** (1067.2; 1161.3 ; 1240.1)	0.8132
Zn [µg/l]	911.2 ± 142.6 (838.9; 898.7 ; 992.7)	1000.2 ± 84.7 (970.9; 1014.3 ; 1043.3)	0.0358	672.3 ± 167.7 * (517.2; 663.1 ; 825.7)	664.5 ± 145.6 ** (544.7; 664.0 ; 757.8)	0.1541
Cu/Zn ratio	1.2 ± 0.2 (1.0; 1.2 ; 1.3)	1.0 ± 0.1 (0.9; 1.0 ; 1.1)	0.0012	1.6 ± 0.3 * (1.3; 1.7 ; 1.8)	1.7 ± 0.4 ** (1.3; 1.6 ; 2.1)	0.6183
MDA [nmol/µl]	0.9 ± 0.6 (0.4; 0.7 ; 1.3)	0.7 ± 0.6 (0.2; 0.4 ; 0.9)	0.1755	2.8 ± 1.0 * (2.2; 2.5 ; 3.2)	2.9 ± 1.1 ** (2.2; 2.7 ; 3.4)	0.1538
SODs [U/ml]	10.3 ± 1.5 (9.0; 10.4 ; 11.4)	9.7 ± 0.9 (9.0; 9.7 ; 10.4)	0.2215	9.4 ± 2.3 (7.7; 9.5 ; 10.8)	8.6 ± 2.9 ** (7.1; 8.0 ; 9.8)	0.3834
TAC [µM CRE]	29.0 ± 16.0 (16.4; 23.3 ; 45.0)	34.7 ± 7.4 (28.9; 32.2 ; 43.0)	0.5679	869.9 ± 391.8 * (708.9; 782.6 ; 988.4)	895.8 ± 361.6 ** (692.8; 854.8 ; 1211.4)	0.7678
Cp [mg/dl]	31.3 ± 12.8 (22.2; 30.8 ; 403)	23.9 ± 8.5 (17.8; 24.7 ; 26.0)	0.0726	23.5 ± 7.2 (17.5; 25.8 ; 26.8)	22.5 ± 7.8 (17.9; 20.8 ; 28.2)	0.7233
hs-CRP [mg/dl]	0.5 ± 0.2 (0.4; 0.5 ; 0.7)	0.6 ± 0.3 (0.4; 0.5 ; 0.7)	0.1975	116.5 ± 50.2 * (80.0; 132.1 ; 145.0)	134.4 ± 30.2 ** (114.6; 130.2 ; 138.5)	0.5828
IL-6 [pg/ml]	0.5 ± 0.4 (0.2; 0.3 ; 0.6)	0.6 ± 0.3 (0.4; 0.5 ; 0.7)	0.8178	63.4 ± 27.7 * (31.9; 74.6 ; 83.8)	54.0 ± 32.5 ** (30.9; 45.9 ; 92.7)	0.1779

The data were presented as mean ± standard deviation and upper quartile, median, lower quartile. *statistically significant compared to healthy women ** statistically significant compared to healthy men

Table S3. Correlation coefficients for the group of healthy subjects and AP patients in terms of rs11640851 in MT1A gene.

NON-SMOKING HEALTHY SUBJECTS		
Correlated parameters	r	p
Individuals with the CA genotype:		
Cu [µg/l] : Cp [mg/l]	0.1909	0.0005
Cu/Zn : Cp [mg/l]	0.6273	0.0359
Individuals with the AA genotype:		
Cu/Zn : MT [ng/l]	0.9000	0.0374
SMOKING HEALTHY SUBJECTS		
Individuals with the CC genotype:		
MT [ng/g Hb] : Cp [mg/l]	0.9000	0.0473
NON-SMOKING PATIENTS WITH ACUTE PANCREATITIS		
Individuals with the CA genotype:		
MT [ng/g Hb] : Zn [µg/l]	0.9000	0.0384
Individuals with the AA genotype:		
Cp [mg/l] : Cu/Zn	0.9000	0.0370
SMOKING PATIENTS WITH ACUTE PANCREATITIS		
Individuals with the CA genotype:		
MT [ng/l] : Cu [µg/l]	0.8286	0.0416
Individuals with the AA genotype:		
MT [ng/g Hb]: Zn [µg/l]	0.9000	0.0474
Individuals with the CC genotype:		
Cp [mg/l] : TAC [µM CRE]	-0.8858	0.0188

Table S4. Correlation coefficients for the group of healthy subjects and AP patients in terms of rs964372 in MT1B gene.

NON-SMOKING HEALTHY SUBJECTS		
Correlated parameters	r	p
Individuals with the GG genotype:		
Cu [µg/l] : Cp [mg/l]	0.8857	0.0188
Cu/Zn : Cp [mg/l]	0.8214	0.0235
Individuals with the CC genotype:		
Cu [µg/l] : Cp [mg/l]	0.8286	0.0415
SMOKING HEALTHY SUBJECTS		
Individuals with the CG genotype:		
MT [ng/l] : Cu [µg/l]	0.7381	0.0366
Individuals with the CC genotype:		
Cp [mg/l] : MT [ng/l]	0.8286	0.0415
Cp [mg/l] : Cu/Zn	0.9529	0.0048
SMOKING PATIENTS WITH ACUTE PANCREATITIS		
INDIVIDUALS WITH THE CG GENOTYPE:		
Cu/Zn : MDA [µmol/l]	0.7676	0.0036

Table S5. Correlation coefficients for the group of healthy subjects and AP patients in terms of rs10636 in MT2A gene.

NON-SMOKING HEALTHY SUBJECTS		
Correlated parameters	r	p
Individuals with the GC genotype:		
MT [ng/g Hb] : Cd [µg/l]	0.6225	0.0132
Cp [mg/l] : Cu [µg/l]	0.5750	0.0249
Cp [mg/l] : IL-6 [ng/l]	0.6606	0.0269
Individuals with the CC genotype:		
MT [ng/l] : Cu [µg/l]	0.9000	0.0374
SMOKING HEALTHY SUBJECTS		
Individuals with the GC genotype:		
Cp [mg/l] : MT [ng/l] :	0.5889	0.0306
Cp [mg/l] : Cu [µg/l]	0.6593	0.0140