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## Supplementary material

Toxic and essential elements in trabecular and cortical femoral neck of Serbian inhabitants: A correlation with whole blood samples

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### Content

**Table S1.** Content of elements in whole blood, trabecular and cortical bones of male ( $n = 10$ ) and female ( $n = 15$ ) patients

**Table S2.** Results of analysis of variances (ANOVA) for evaluation of element differences in whole blood, trabecular and cortical bones according to age (categories: 50-59, 60-69, 70-79, 80+ age).

**Table S1.** Content of elements in whole blood, trabecular and cortical bones of male ( $n = 10$ ) and female ( $n = 15$ ) patients

Element	Gender	Trabecular bone		Cortical bone		Whole blood	
		Mean $\pm$ St. dev.	<i>t-test</i> *	Mean $\pm$ St. dev.	<i>t-test</i>	Mean $\pm$ St. dev.	<i>t-test</i>
Ca (mg/g)	Men	273 $\pm$ 12	0.928	269 $\pm$ 28	0.181	97 $\pm$ 7	0.949
	Women	272 $\pm$ 19		294 $\pm$ 52		97 $\pm$ 8	
Mg (mg/g)	Men	2.74 $\pm$ 0.29	0.586	2.35 $\pm$ 0.29	0.053	21 $\pm$ 2	0.349
	Women	2.81 $\pm$ 0.28		2.57 $\pm$ 0.24		20 $\pm$ 2	
Na (mg/g)	Men	6.09 $\pm$ 0.45	0.575	6.32 $\pm$ 0.54	0.539	3742 $\pm$ 104	0.262
	Women	5.97 $\pm$ 0.9		6.42 $\pm$ 0.27		3665 $\pm$ 191	
K ( $\mu$ g/g)	Men	436 $\pm$ 197	0.952	477 $\pm$ 184	0.352	204 $\pm$ 15	0.717
	Women	432 $\pm$ 204		421 $\pm$ 117		200 $\pm$ 34	
Zn ( $\mu$ g/g)	Men	130 $\pm$ 12	0.339	98 $\pm$ 19	0.373	658 $\pm$ 213	0.765
	Women	125 $\pm$ 15		104 $\pm$ 13		689 $\pm$ 276	
Sr ( $\mu$ g/g)	Men	53.9 $\pm$ 9.0	0.919	57 $\pm$ 12	0.517	29 $\pm$ 10	0.666
	Women	53.3 $\pm$ 18.0		53 $\pm$ 16		28 $\pm$ 8	
Ni ( $\mu$ g/g)	Men	0.18 $\pm$ 0.14	0.723	0.18 $\pm$ 0.14	0.533	959 $\pm$ 169	0.114
	Women	0.2 $\pm$ 0.17		0.24 $\pm$ 0.30		1110 $\pm$ 254	
Cu ( $\mu$ g/g)	Men	0.33 $\pm$ 0.17	0.760	0.21 $\pm$ 0.14	0.536	6 $\pm$ 5	0.597
	Women	0.31 $\pm$ 0.17		0.18 $\pm$ 0.11		5 $\pm$ 4	
Pb ( $\mu$ g/g)	Men	1.09 $\pm$ 0.38	0.073	1.05 $\pm$ 0.70	0.270	31 $\pm$ 19	0.174
	Women	0.78 $\pm$ 0.41		0.66 $\pm$ 0.92		21 $\pm$ 16	
Se ( $\mu$ g/g)	Men	0.09 $\pm$ 0.17	0.349	0.084 $\pm$ 0.063	<b>0.029</b>	45 $\pm$ 12	0.739
	Women	0.05 $\pm$ 0.03		0.041 $\pm$ 0.029		43 $\pm$ 15	
V ( $\mu$ g/g)	Men	0.014 $\pm$ 0.023	0.891	0.0030 $\pm$ 0.0048	0.909	0.113 $\pm$ 0.044	0.466
	Women	0.013 $\pm$ 0.024		0.0033 $\pm$ 0.0082		0.127 $\pm$ 0.049	
Mo ( $\mu$ g/g)	Men	0.20 $\pm$ 0.34	0.318	0.0160 $\pm$ 0.0084	0.666	1.57 $\pm$ 0.51	0.362
	Women	0.10 $\pm$ 0.17		0.0180 $\pm$ 0.0127		1.79 $\pm$ 0.60	
Mn ( $\mu$ g/g)	Men	0.30 $\pm$ 0.26	0.616	0.121 $\pm$ 0.081	0.913	2.8 $\pm$ 1.3	0.734
	Women	0.26 $\pm$ 0.15		0.124 $\pm$ 0.056		3.0 $\pm$ 1.4	
Co ( $\mu$ g/g)	Men	0.071 $\pm$ 0.095	0.094	0.025 $\pm$ 0.031	0.134	0.43 $\pm$ 0.20	0.640
	Women	0.027 $\pm$ 0.024		0.012 $\pm$ 0.008		0.47 $\pm$ 0.22	
Cr ( $\mu$ g/g)	Men	2.9 $\pm$ 4.7	0.512	0.39 $\pm$ 0.21	0.278	1.01 $\pm$ 1.24	0.051
	Women	1.9 $\pm$ 2.8		0.57 $\pm$ 0.46		0.27 $\pm$ 0.54	
Cd ( $\mu$ g/g)	Men	0.014 $\pm$ 0.011	0.791	0.0090 $\pm$ 0.0099	0.196	0.26 $\pm$ 0.21	0.509
	Women	0.015 $\pm$ 0.013		0.0047 $\pm$ 0.0064		0.21 $\pm$ 0.11	
Rb ( $\mu$ g/g)	Men	0.10 $\pm$ 0.06	0.349	0.105 $\pm$ 0.048	0.988	100 $\pm$ 8	0.392
	Women	0.14 $\pm$ 0.11		0.105 $\pm$ 0.055		110 $\pm$ 35	
As (ng/g)	Men	8.6 $\pm$ 5.3	0.908	4.1 $\pm$ 2.1	0.926	1.03 $\pm$ 0.34	0.906
	Women	8.9 $\pm$ 3.7		4.2 $\pm$ 2.4		1.05 $\pm$ 0.47	
U (ng/g)	Men	0.37 $\pm$ 0.26	0.934	0.42 $\pm$ 0.29	0.375	17 $\pm$ 17	0.107
	Women	0.36 $\pm$ 0.18		0.34 $\pm$ 0.19		8 $\pm$ 10	

\*The mean difference is significant at the 0.05 level.

**Table S2.** Results of analysis of variances (ANOVA) for evaluation of element differences in whole blood, trabecular and cortical bones according to age (categories: 50-59, 60-69, 70-79, 80+ age)

	Trabecular bone		Cortical bone		Whole blood	
	<i>F</i>	<i>Sig.*</i>	<i>F</i>	<i>Sig.</i>	<i>F</i>	<i>Sig.</i>
<b>Ca</b>	1.092	0.374	0.946	0.436	0.908	0.454
<b>Mg</b>	1.501	0.243	0.291	0.832	1.094	0.374
<b>Na</b>	1.551	0.231	0.388	0.763	0.253	0.858
<b>K</b>	0.405	0.751	0.183	0.907	2.408	0.096
<b>Zn</b>	2.136	0.126	0.721	0.551	1.112	0.366
<b>Sr</b>	2.280	0.109	2.691	0.072	0.932	0.442
<b>Ni</b>	5.668	<b>0.005</b>	0.498	0.688	1.259	0.314
<b>Cu</b>	1.201	0.334	1.779	0.182	0.392	0.760
<b>Pb</b>	1.183	0.340	3.760	<b>0.026</b>	0.368	0.777
<b>Se</b>	0.369	0.776	0.987	0.418	3.580	<b>0.031</b>
<b>V</b>	0.274	0.844	0.441	0.726	0.272	0.845
<b>Mo</b>	1.248	0.318	0.609	0.616	0.397	0.757
<b>Mn</b>	0.995	0.415	1.991	0.146	0.117	0.949
<b>Co</b>	0.446	0.723	0.083	0.969	1.470	0.251
<b>Cr</b>	2.095	0.131	0.894	0.461	0.411	0.747
<b>Cd</b>	2.103	0.130	0.423	0.738	0.204	0.892
<b>Rb</b>	1.120	0.363	0.711	0.556	1.282	0.306
<b>As</b>	0.612	0.615	4.748	<b>0.011</b>	0.726	0.548
<b>U</b>	0.499	0.687	0.343	0.795	0.473	0.705

\*The mean difference is significant at the 0.05 level