

Appendix Table A1: Micro-computed tomography assessment of bone microarchitecture of the operated side (left) and the nonoperated side (right) between the intervention group (zoledronic acid) and the control group (saline solution).

	Zoledronic acid (mean $\pm$ SD)		Saline solution (mean $\pm$ SD)		p-value ¹	p-value ²	p-value ³	p-value ⁴
	Left	Right	Left	Right				
Ct.Th cortical bone tendon area (μm)	385.56 $\pm$ 72.52	410.26 $\pm$ 25.38	404.18 $\pm$ 86.20	427.66 $\pm$ 30.18	0.577	0.146	0.300	0.398
Ct.Th cortical bone articular surface (μm)	410.05 $\pm$ 53.02	431.67 $\pm$ 30.21	373.62 $\pm$ 51.69	430.33 $\pm$ 29.00	0.104	0.913	0.117	0.004
BV/TV trabecular bone tendon area (%)	38.82 $\pm$ 6.48	34.46 $\pm$ 3.18	31.72 $\pm$ 4.42	34.08 $\pm$ 2.58	0.005	0.752	0.075	0.074
BV/TV trabecular bone articular surface (%)	49.36 $\pm$ 5.35	48.31 $\pm$ 2.62	41.67 $\pm$ 7.34	48.84 $\pm$ 2.95	0.010	0.654	0.525	0.002
Tb.N trabecular bone tendon area (mm^{-1})	3.14 $\pm$ 0.57	2.65 $\pm$ 0.29	2.52 $\pm$ 0.26	3.00 $\pm$ 0.00	0.004	0.185	0.026	0.963
Tb.N trabecular bone articular surface (mm^{-1})	3.31 $\pm$ 0.29	3.11 $\pm$ 0.16	2.85 $\pm$ 0.24	3.03 $\pm$ 0.00	0.001	0.252	0.027	0.004
Tb.Th trabecular bone tendon area (μm)	131.32 $\pm$ 10.94	128.62 $\pm$ 5.02	139.42 $\pm$ 16.83	129.78 $\pm$ 7.45	0.189	0.668	0.402	0.044
Tb.Th trabecular bone articular surface (μm)	146.00 $\pm$ 17.96	139.24 $\pm$ 5.32	144.36 $\pm$ 18.35	144.95 $\pm$ 8.15	0.828	0.063	0.190	0.917
Tb.Sp. trabecular bone tendon area (μm)	251.22 $\pm$ 57.60	306.27 $\pm$ 39.17	330.32 $\pm$ 38.64	327.90 $\pm$ 31.11	0.001	0.146	0.017	0.858
Tb.Sp trabecular bone articular surface (μm)	198.53 $\pm$ 27.81	209.75 $\pm$ 14.67	249.85 $\pm$ 35.35	219.37 $\pm$ 18.24	0.001	0.176	0.163	0.002

BV/TV, bone volume/total volume; Ct.Th, cortical thickness; SD, standard deviation; Tb.N, trabecular number; Tb.Sp, trabecular separation; Tb.Th, trabecular thickness.

p-value₁: Zoledronic acid left versus saline solution left. p-value₂: Zoledronic acid right versus saline solution right. p-value₃: Zoledronic acid left versus zoledronic acid right. p-value₄: Saline solution left versus saline solution right.

Appendix Table A2: Correlation analysis between bone microarchitecture and biomechanical properties of the operated side (left) and the non-operated side (right) between the intervention group (zoledronic acid) and the control group (saline solution).

	Zoledronic acid				Saline solution			
	Left		Right		Left		Right	
	r	p-value	r	p-value	r	p-value	r	p-value
Ct.Th cortical bone tendon area (μm)	0.69	0.026	0.05	0.892	0.03	0.948	-0.32	0.410
Ct.Th cortical bone articular surface (μm)	0.60	0.069	0.31	0.387	-0.35	0.359	-0.35	0.359
BV/TV trabecular bone tendon area (%)	-0.21	0.555	0.31	0.387	-0.03	0.948	-0.42	0.270
BV/TV trabecular bone articular surface (%)	-0.02	0.947	0.56	0.096	0.00	1.000	-0.33	0.385
Tb.N trabecular bone tendon area (mm^{-1})	-0.20	0.578	0.09	0.815	0.32	0.398	-0.33	0.379
Tb.N trabecular bone articular surface (mm^{-1})	0.08	0.827	0.40	0.251	0.20	0.613	-0.03	0.948
Tb.Th trabecular bone tendon area (μm)	-0.17	0.638	-0.18	0.632	-0.20	0.613	-0.25	0.521
Tb.Th trabecular bone articular surface (μm)	0.05	0.881	-0.07	0.865	-0.60	0.097	-0.27	0.493
Tb.Sp. trabecular bone tendon area (μm)	0.20	0.578	-0.22	0.537	-0.18	0.644	0.27	0.493
Tb.Sp trabecular bone articular surface (μm)	-0.08	0.828	-0.38	0.279	0.02	0.982	0.17	0.678

BV/TV, bone volume/total volume; Ct.Th, cortical thickness; r, Spearman rank correlation coefficient; Tb.N, trabecular number; Tb.Sp, trabecular separation; Tb.Th, trabecular thickness.