

Supplementary Table 1 Baseline Information univariate analysis and the score of Osteoporosis Quality of Life scale.

Variable	T1		T2		T3	
	Mean±SD	P	Mean±SD	P	Mean±SD	P
Gender						
Males	231.14±32.17	0.005*	269.66±31.12	0.012*	311.07±41.14	0.017*
Females	216.09±27.40		254.77±32.64		292.42±42.97	
Age						
50~60	235.77±36.12	<0.001*	267.87±33.26	0.024*	306.33±43.33	0.054
60~70	224.92±31.61		265.79±35.40		306.50±42.83	
70~80	212.50±17.12		252.89±28.89		291.95±41.63	
80~	205.33±24.74		244.56±27.37		278.39±41.60	
Educational background						
Primary school and below	224.80±24.99	0.354	256.23±31.67	0.516	293.40±45.73	
Junior high school	216.67±26.50		259.65±34.39		300.65±45.61	
High school or technical secondary school	224.73±37.24		264.49±34.29		301.08±40.55	
(College for) professional training	210.40±11.37		248.50±24.53		295.80±43.45	
Undergraduate course	204.67±12.01		245.00±13.23		283.67±32.35	
Working condition						
No work	224.00±8.49	0.070	255.50±3.54	0.509	288.50±2.12	0.720
Working	234.09±37.02		266.91±35.31		304.73±41.21	
Retired	218.25±27.84		258.10±32.55		297.22±43.91	
Marital status						
Married	220.93±29.30	0.795	259.02±11.07	0.370	297.83±43.41	0.476
Bereft of one's spouse	217.00±47.29		274.00±19.27		313.50±33.25	
Dwelling state						
Living alone	221.00±34.61	0.963	260.50±30.14	0.805	296.48±42.08	0.747
Live with family	220.74±27.54		259.00±34.01		299.05±43.77	
Payment methods for medical expenses						
Urban medical insurance	217.22±26.15	0.065	256.61±31.69	0.143	293.64±42.31	0.069
Self-paying	228.17±35.08		265.26±34.58		307.76±43.72	
Monthly income						
<2000/month	215.78±23.86	<0.001*	262.44±37.94	0.725	302.78±50.33	0.712
2000~3999/ month	224.24±27.74		258.92±35.02		299.11±46.39	
4000~5999/ month	211.05±21.07		256.49±30.99		293.71±43.27	
6000~7999/ month	235.29±39.11		264.38±32.79		304.09±37.67	

Variable	T1		T2		T3	
	Mean±SD	P	Mean±SD	P	Mean±SD	P
History of smoking						
Non-smoking	226.40±20.83	0.039*	270.40±29.48	0.107	323.25±38.97	0.005*
Smoking	219.89±30.91		257.63±33.08		294.12±42.53	
History of drinking						
Non-drinking	220.59±30.86	0.801	258.48±33.47	0.348	295.97±43.40	0.088
Drinking	222.53±20.03		266.47±27.29		315.00±38.33	
Movement situation						
Yes	219.60±25.57	0.628	259.10±30.48	0.900	299.94±42.40	0.650
No	222.04±33.48		259.80±35.19		296.41±44.10	
Number of comorbidities						
0	226.28±36.36	0.110	266.36±34.61	0.031*	304.80±45.11	0.175
1	217.00±19.42		251.54±29.24		291.44±40.25	
2	208.44±17.39		249.63±29.62		286.38±40.13	
3	221.33±30.27		280.67±25.74		321.33±41.68	
Hypertension						
Yes	216.15±19.39	0.097	254.00±29.70	0.080	291.40±40.20	0.103
No	224.54±35.55		263.78±34.64		303.58±44.89	
Diabetes						
Yes	218.13±19.93	0.627	247.88±30.45	0.570	279.54±41.08	0.019*
No	221.38±31.39		261.84±32.88		302.16±42.70	
BMI index number(kg/m ²)						
<18.5	211.00±0.00	0.688	230.00±0.00	0.319	243.00±0.00	0.149
18.5~23.9	222.47±34.47		254.96±31.63		290.86±38.36	
24~27.9	220.76±26.58		263.80±34.13		305.05±46.27	
28~32	207.50±19.21		251.83±21.41		292.17±33.94	
Fracture segment						
Anti-osteoporotic therapy	219.22±26.94	0.253	259.18±30.37	0.860	295.69±40.19	0.202
Multiple segments	226.00±37.32		260.33±40.20		306.67±51.37	
Anti-osteoporotic therapy						
Yes	222.65±30.30	0.033*	260.23±32.89	0.032*	300.05±43.05	0.270
No	205.81±20.78		254.81±33.51		287.38±43.48	
CD-RISC						
Low(0~56)	216.61±26.26	<0.001*	251.45±29.52	<0.001*	284.70±41.31	
Middle(57~70)	228.94±29.21		284.67±26.72		327.39±24.45	
High(71~100)	252.27±43.32		298.33±28.00		339.00±31.24	
SSRS						

Variable	T1		T2		T3	
	Mean±SD	P	Mean±SD	P	Mean±SD	P
Low(12~17)	197.00±2.83	0.048*	261.00±0.00	0.062	0.00±0.00	0.007*
Middle(18~48)	220.36±29.63		258.33±31.79		296.84±42.42	
High(49~66)	242.60±28.57		297.00±52.70		364.00±18.52	

SD: Standard deviation; n: number of people; %: percentage; Mean: Mean of the Osteoporosis Quality of Life scale; T1: 1 day after surgery; T2: 1 month after surgery; T3: 3 months after surgery; *: $P < 0.05$.