

Supplemental Table 1. Summary of patient cohort

Variables	Patient cohort
Age (yrs)	71.1 ± 8.7
Sex	
Female	275 (32.4%)
Male	573 (67.6%)
BMI (kg/m²)	24.4 ± 3.6
Diagnosis	
LSS	774 (91.3%)
DS	74 (8.7%)
Duration of symptom	
< 2yrs	441 (52.0%)
≥ 2yrs	407 (48.0%)
Smoking habit	
Smoking history	297 (35.0%)
Current smoker	63 (7.4%)
Job type	
Housewife	237 (27.9%)
Office work	212 (25.0%)
Manual labor	124 (14.6%)
Unemployed	275 (32.4%)
History of spine surgery	69 (8.1%)
Intervertebral level involved	1.8 ± 0.8
Time of surgery (min.)	69.4 ± 36.5
Estimated blood loss (mL)	48.0 ± 112.7
Perioperative complication	57 (6.7%)
Length of hospital stay (days)	12.1 ± 4.6
No. of comorbidities	
0	161 (19.0%)
1	297 (35.0%)
2	193 (22.8%)
≥3	176 (23.2%)
Presence of comorbidities	
Cardiac disease	144 (17.7%)

Cancer	112 (13.2%)
Cerebral disease	56 (6.6%)
Diabetes mellitus	179 (20.0%)
Hypertension	446 (52.6%)
Kidney disease	23 (2.7%)
Liver disease	29 (3.4%)
Lung disease	50 (5.9%)
Musculoskeletal disease	137 (16.2%)
Parkinson disease	10 (1.2%)
Renal disease	53 (6.3%)
Rheumatoid arthritis	32 (3.8%)
Vascular disease	21 (2.5%)
Frailty (mFI-5)	
Robust	224 (26.4%)
Prefrail	345 (40.7%)
Frail	279 (32.9%)
Means and standard deviations. Percentage in parenthesis. Range in bracket	

Supplemental Table 2. Comparisons of background variables among three different hospitals

Variables	Academic hospital	Tertiary center	Private institution	p1	p2	p3
Age	71.6±8.3	69.4±10.2	71.0 ±8.6	ns	ns	ns
Gender (female)	165(31%)	46(36.5%)	64(33.9%)			
BMI (kg/m ²)	24.8±3.6	23.7±3.4	24.1±3.6	0.01	ns	ns
No. of comorbidities	1.9±1.4	1.2±1.1	1.1±1	0.01	0.01	ns
No. of reop case	35(6.6%)	11(8.7%)	23(12.2%)		ns	
Job status (H; O; M; U)	153(28.7%);157(29.5%);49(9.2%);174(32.6%)	33(26.2%);44(34.9%);17(13.5%);32(25.4%)	51(27%);11(5.8%);58(30.7%);69(36.5%)		0.01	
Smoking (N; H; A)	295(55.3%);217(40.7%);21(3.9%)	65(51.6%);47(37.3%);14(11.1%)	128(67.7%);33(17.5%);28(14.8%)		0.01	
TOS (min.)	76.3±38.6	75.6±32.6	46.0±19.5	ns	0.01	0.01
EBL (mL)	56.9±134.0	57.3±54.3	16.9±58.6	ns	0.01	0.01
Level treated	1.8±0.8	1.7±0.9	1.9±0.7	ns	ns	ns
Periop complications	44(8.3%)	5(4%)	8(4.2%)		ns	
LOS (days)	10.6±4.8	14.2±3.5	14.9±2.2	0.01	0.01	ns

Means and standard deviations. Percentage in parenthesis. P1 indicated the comparisons between academic hospital and tertiary center. P2 indicated the comparisons between academic hospital and private institution. P3 indicated the comparisons between tertiary center and private institution. * indicated statistically significant. Ns, not significant; H, housewife; O, office work; M, manual labor; U, unemployed; N, no smoking; H, smoking history; A, active smoker