

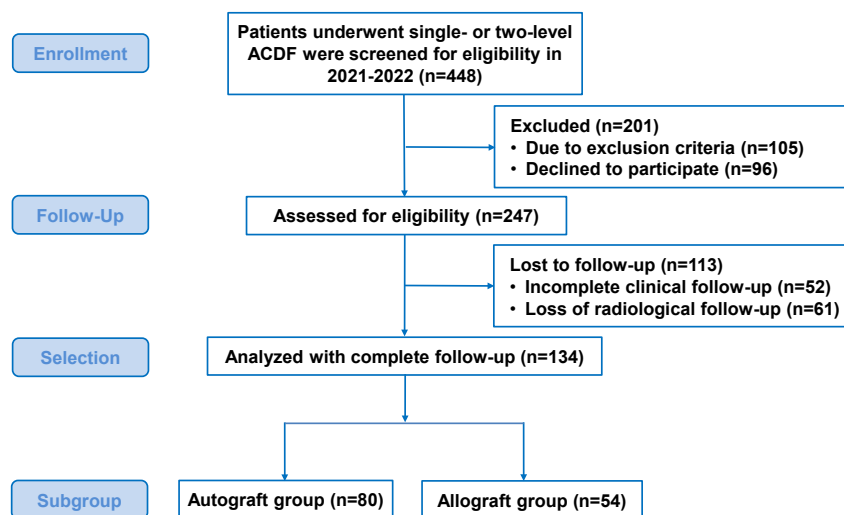


Figure S1 Flowchart illustrating the selection process of patients included in the study.

Table S1 Demographic data of the patients

Demographics	Autograft (n=80)	Allograft (n=54)	P value
Male	36 (45%)	26 (48.1%)	0.720
Age (years)	64.5±10.9	62.8±9.4	0.352
BMI (kg/m ²)	24.7±5.2	25.5±4.9	0.373
Smoking	12 (15%)	10 (18.5%)	0.590
Symptom			0.352
Radiculopathy	18 (22.5%)	16 (26.7%)	
Myelopathy	62 (77.5%)	38 (63.3%)	
Level	n=98	n=63	0.990
C3/4	8 (8.2%)	5 (7.9%)	
C4/5	24 (24.5%)	16 (25.4%)	
C5/6	52 (53.1%)	32 (50.8%)	
C6/7	14 (14.3%)	10 (14.3%)	
Clinical baseline			
Neck pain VAS	5.2±2.9	4.9±2.4	0.716
mJOA	12.7±3.3	13.1±3.5	0.416
Radiology baseline			
cSVA	27.42±11.10	27.63±12.32	0.911
C2–7 lordosis	4.72±11.58	2.63±10.91	0.255
Segmental Cobb angle	3.41±4.77	2.25±6.06	0.178
Segmental height	32.27±3.51	31.47±3.41	0.156

cSVA, cervical sagittal vertical axis mJOA, the modified Japanese Orthopedic Association score; VAS, visual analog scale.

Table S2 The mJOA scores of patients with CSM in the autograft and allograft groups

Period	mJOA		P value
	Autograft (n=62)	Allograft (n=38)	
Preoperation	11.7±2.3	12.1±2.5	0.416
3 months postop	13.3±3.4 [^]	13.4±1.6 [^]	0.865
6 months postop	14.4±2.3 [^]	14.5±1.1 [^]	0.803
12 months postop	14.6±2.0 [^]	14.8±1.0 [^]	0.568
24 months postop	15.1±2.1 [^]	15.3±0.7 [^]	0.572

[^], postoperative mJOA scores compared with preoperative scores, P<0.05. CSM, cervical spondylotic myelopathy; mJOA, the modified Japanese Orthopedic Association score; postop, postoperative.

Table S3 Sagittal radiological outcomes between the autograft and allograft groups

Variables	Autograft (level =98)	Allograft (level =63)	P value
Preoperation			
cSVA	27.42±11.10	27.63±12.32	0.911
C2–7 lordosis	4.72±11.58	2.63±10.91	0.255
Segmental Cobb angle	3.41±4.77	2.25±6.06	0.178
Segmental height	32.27±3.51	31.47±3.41	0.156
Immediately postoperation			
cSVA	29.41±10.73	31.62±10.55	0.201
C2–7 lordosis	7.72±10.08	6.05±10.23	0.309
Segmental Cobb angle	6.95±4.38 [^]	2.25±6.06 [^]	0.215
Segmental height	33.94±3.43	33.14±3.50	0.154
24 months postoperation			
cSVA	29.41±10.73	28.63±12.68	0.395
C2–7 lordosis	9.53±10.14	6.61±9.58	0.070
Segmental Cobb angle	4.09±4.92	3.25±5.26	0.305
Segmental height	33.05±3.41	32.05±2.94	0.057
Subsidence	35 (35.7%)	23 (36.5%)	0.772

[^], preoperative and postoperative angular differences between the autograft and allograft groups, P<0.05. cSVA, cervical sagittal vertical axis.

Table S4 Intervertebral fusion of the autograft and allograft groups

Variables	Autograft (level =98)	Allograft (level =63)	P value
3 months postoperation			
Fusion score	2.90±0.31	2.67±0.52	0.001
Fusion volume (mm ³)	185.04±92.67	143.54±60.41	0.007
ISM <1 mm	32 (32.7%)	27 (42.9%)	0.190
Fusion	11 (11.2%)	0	0.004
6 months postoperation			
Fusion score	3.71±0.57	3.18±0.41	<0.001
Fusion volume (mm ³)	270.03±96.15	213.42±114.08	0.001
ISM <1 mm	74 (75.5%)	38 (60.3%)	0.041
Fusion	46 (46.9%)	15 (23.8%)	0.003
12 months postoperation			
Fusion score	4.15±0.67	3.97±0.74	0.092
Fusion volume (mm ³)	345.79±131.81	289.02±112.75	0.005
ISM <1 mm	91 (92.9%)	53 (84.1%)	0.079
Fusion	89 (90.8%)	54 (85.7%)	0.316
24 months postoperation			
Fusion score	4.32±0.56	4.17±0.63	0.116
Fusion volume (mm ³)	413.37±98.24	396.82±123.58	0.348
ISM <1 mm	93 (94.9%)	59 (93.7%)	0.738
Fusion	93 (94.9%)	58 (92.1%)	0.515

ISM, interspinous motion.