suppression of a second s					
HIVD		HIVD (-)	HIVD (+)		
	All (n=146)	118 (80.82)	28 (19.18)		
	Low ODI (n=118)	94 (79.66)	24 (20.34)		
	High ODI (n=28)	24 (85.71)	4 (14.29)		
DDD		Normal	Early	Advanced	
	All (n=146)	5 (3.42)	49 (33.56)	92 (63.01)	
	Low ODI (n=118)	4 (3.39)	40 (33.90)	74 (62.71)	
	High ODI (n=28)	1 (3.57)	9 (32.14)	18 (64.29)	
Spondylolisthesis		Normal	≤25%	>25%	
	All (n=146)	117 (80.14)	29 (19.86)	0 (0)	
	Low ODI (n=118)	94 (79.66)	24 (20.34)	0(0)	
	High ODI (n=28)	23 (82.14)	5 (17.86)	0(0)	
FJD		0	1	2	3
	All (n=146)	20 (13.70)	63 (43.15)	40 (27.40)	23 (15.75)
	Low ODI (n=118)	17 (14.41)	48 (40.68)	32 (27.12)	21 (17.80)
	High ODI (n=28)	3 (10.71)	15 (53.57)	8 (28.57)	2 (7.14)
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Supplementary Table S1. Prevalence of spinal disorders based on magnetic resonance imaging findings

Values are presented as number (%).

Degenerative disc disease (DDD) was evaluated according to Riesenburger's classification system, which categorizes lumbar disc degeneration into 0–5 points based on disc structure and brightness, Modic change, high-intensity zone, and disc height. Grade of 3 or higher were categorized as advanced degeneration. Grading of spondylolisthesis employed the Meyerding classification, based on the ratio of vertebral slippage in relation to the anteroposterior diameter of adjacent inferior vertebral body. Facet joint degeneration (FJD) was evaluated using a four-stage grading system: 0 (normal), 1 (narrowing of facet joint), 2 (narrowing plus sclerosis or hypertrophy), and 3 (severe degenerative).

HIVD, herniated intervertebral disc; ODI, Oswestry Disability Index.